Supplemental Report of the 2005-06 Budget Act

DEPARTMENT OF FISH AND GAME

January 10, 2008

DEPARTMENT OF FISH AND GAME

Legislative Analyst's Office
Supplemental Report of the 2005 Budget Act
2005-06 Fiscal Year

Item 3600-001-0001

The Department of Fish and Game (Department) is submitting this revision of the original 2005 Supplemental Report, recognizing that additional work is required to be able to provide complete financial detail information. The information reflected is an updated reveal of the Department's current structure and activities for the past two fiscal years.

It is important to note that the Department began working diligently in FY 2006-07, as prescribed in the Legislative Analyst's Office (LAO) Supplemental Report of the 2006 Budget Act, to complete a comprehensive project that will have measurable positive effects on the Department's fiscal reporting capability. The purpose is to realign budgeted resources with the organizational structure and update the administrative, fiscal, and other infrastructure systems. As identified in the Department's 2006 Corrective Action Plan, in response to the LAO's Supplemental Report Language, "The Department will continue to reform its systems to collect data that will improve its ability to respond to inquiries from the Legislative Analyst's Office, the Legislature and stakeholders."

Currently, there are no known problems or anticipated difficulties to complete this immense project. However, due to the ambitious change required in this structural and financial reform, an additional twelve to eighteen months is necessary for completion of the Department's internal Component Budget Allotment development, distribution, and ultimately the compilation of fiscal year expenditures. These efforts are concentrated to provide full and transparent financial information. The arduous activities and good faith effort embarked upon by the Department in this complex project reflects the commitment to improve its fiscal reporting systems. This information, as demonstrated in the 2006 Budget Act Supplemental Report titled, "***Progress Report on Tasks Associated With Corrective Action Plan,"*** submissions in FY 2006-07 and 2007-08, will provide a transparent examination of the Department's activities that correlate to its mission and corresponding statutory mandates.

The mission of the Department is to manage California's diverse fish, wildlife and plant resources, and the habitats upon which they depend, for their ecological values and for their use and enjoyment by the public.

This includes habitat protection and maintenance in a sufficient amount and quality to ensure the survival of all species and natural communities. The Department is also responsible for the diversified use of fish and wildlife including recreational, commercial, scientific and educational uses.

Over the last few years, the Department has learned to work harder and smarter with its available dedicated staff. Much has changed since 1995 with regards to reduced staffing levels, declining license sales, increased workloads, and demands for services. In response, the Department reviewed the existing program and organizational structures to develop alternatives for operating more effectively, and to restructure program divisions to maximize communication, coordination, and effectiveness while meeting mandates. To facilitate this effort, the Department conducted a comprehensive and sustainable overhaul of its structure; the culmination of the 2006-07 "restructure" effort to refine the Department's organizational structure and clearly define roles and responsibilities. The Department is still in the process of completing revisions to its complex program budget structure to improve the management of existing and future challenges with available resources.

The Department's ongoing efforts to improve departmental organization and operations and deliver mission-critical programs at the highest level have reached another important milestone. In addition, the Department executive management directed Headquarter program branches and regions to focus their efforts on the fundamental priorities such as:

- wildlife and fisheries management,
- water resource management,
- habitat conservation planning and regulations, and
- resource assessment

These changes are the beginning of what will be a continual effort to improve the Department's operations and to deliver mission-critical programs at the highest level possible.

Over the years, the Department has been charged with expanded and more diverse stewardship responsibilities; in many cases without the benefit of the necessary resources to perform them. The Department has adjusted to accommodate these changes. With the renewed focus of the Department's resources on mission-critical activities, creating an organizational structure that serves and supports these activities makes good business sense. A fundamental element of this comprehensive organizational structure includes building in components, for internal fiscal program tracking, that accommodates and supports the program and staff enhancements provided through the 2006-07 and 2007-08 fiscal year budget augmentations, while keeping an eye towards potential future needs.

Summary Organizational Structure Changes:

CURRENT ORGANIZATION	NEW ORGANIZATION
Habitat Conservation Division (HCD) Note: Redirected some staff to the RMPD. Other staff will be redirected to the ROD.	**Regional Operations Division (ROD)**
HCD Habitat Conservation Planning Branch	**Resources Management and Policy Division – *Habitat Conservation Branch***
HCD Central Valley Bay Delta Branch Note: Redirect some staff to the Water Branch. Other staff will be redirected to Region 3. One staff to be Senior Advisor to Director on Bay delta issues.	**Resources Management and Policy Division – *Water Branch***
HCD Native Anadromous Fish and Watershed Branch Note: Redirected staff to the Fisheries Branch & Wildlife Branch.	**Resources Management and Policy Division – *Fisheries Branch & Wildlife Branch***
HCD Wildlife and Habitat Data Analysis Branch	**Resources Management and Policy Division – *Bio-geographical Data Branch***
Wildlife and Inland Fisheries Division (WIFD)	**Resources Management and Policy Division (RMPD)**
WIFD Fisheries Programs Branch	**Resources Management and Policy Division – *Fisheries Branch***
WIFD Lands and Facilities Branch Note: Redirect staff to the Wildlife Branch and/or Grants Unit.	**Resources Management and Policy Division – *Wildlife Branch***
WIFD Lands and Facilities Branch - Hatcheries Note: Redirect staff to the Fisheries Branch	**Resources Management and Policy Division – *Fisheries Branch***
WIFD Lands and Facilities Branch - Engineering	**Engineering Unit – *Attached to the Regional Operations Division for reporting purposes***
WIFD Wildlife Programs	**Resources Management and Policy Division – *Wildlife Branch***
WIFD Enforcement Branch	***New* - Law Enforcement Division (LED)**
WIFD Conservation Education Branch	***New* - Office of Communications, Education, and Outreach**

The major programs that currently contribute to the Department meeting its mission include:

- Biodiversity Conservation
- Hunting, Fishing, and Public Use
- Management of Department Lands and Facilities
- Law Enforcement
- Communications, Education, and Outreach
- Spill Prevention and Response
- Fish and Game Commission

The future will be a time of large scale changes and challenges for the Department. In 2008 and beyond, the population, environment, political, financial, and demographic face of California has and will be rapidly changing. Development and growth of California's economy will certainly impact the Department's trustee responsibility for all fish, wildlife, and plant resources requiring the need for the best business planning model to support and meet our mission. Smart business planning will be the essential tool to meet future challenges in a complex environment.

The new organizational structure reinforces and supports the parallel roles and responsibilities of the divisions and regions, by more aptly representing the policy-making functions of the divisions and the implementation activities in the regions. In order to accommodate the significant additions to the Department's budget and available staff resources - and its new related obligations - a revised departmental structure was essential. The new structure finalizes the 2006-07 realignment of programs, the establishment of a new division, the formation of two new program branches, a new Region, and a redistribution of four Region's boundaries (***Refer to Attachment A***). This has been an ambitious effort, but it is one that is certain to improve the Department's effectiveness in serving the resources and people of California. This will also allow for greater transparency and provide a solid framework for current staff that will be able to accommodate future growth.

To coordinate program policies, regulations, legislation, funding, operational procedures, and statewide work responsibility, the Department organized into four headquarter divisions and seven field regions. Following is an overview of some of the more notable changes.

Department of Fish and Game Organizational Structure

Program Policy Divisions, Sacramento, Headquarters:

- ***Resources Policy and Management Division*** – *New: Combines HCD & WIFD*
- ***Law Enforcement Division*** – *Elevated from Branch to Division*
- ***Office of Spill Prevention and Response*** – *No Change*
- **Administration Division** – *No Change*

Operational Field Regions and Location:

- Regional Operations Division, Sacramento, Headquarters - *New*
- Northern Region 1, Redding – *New Boundaries*
- North Central Region 2, Ranch Cordova – *New Boundaries*
- Bay Delta Region 3, Yountville and Stockton – *New Boundaries*
- Central Region 4, Fresno – *New Boundaries*
- South Coast Region 5, San Diego – *No Change*
- Inland Deserts Region 6, Ontario – *No Change*
- Marine Region 7, Monterey – *No Change*

Program divisions are responsible for overseeing, developing, and maintaining policies, providing statewide coordination over each program area, and providing support and information to Regions, the Director's Office, and the Fish and Game Commission. Regions are responsible for implementing statewide programs and policies at the field operational level.

Resources Management and Policy Division (RMPD) Branches & Sections

Wildlife Branch

- Wildlife Resource Assessment
- Wildlife Species Management
- Lands

Fisheries Branch

1. Fisheries Species Management
2. Fisheries Resource Assessment & Coastal Anadromous
3. Fish Production & Distribution

Habitat Conservation Branch

2. Environmental Review & Permitting
3. Conservation Planning
4. Invasive Species
5. Grant Coordination (Section 6)
6. Rare Plants

Water Branch

1. CALFED Planning & Oversight (Includes ERP Grants)
2. Statewide Water Planning
3. NCCP/BCPD

Bio-geographic Data Branch

2. GIS
3. Data Development
4. Vegetation Mapping

The new RMPD organizational branches and sections represent the basic template or foundation for the Headquarters and Regional 1 – 7 Operations. These new organizational branches and sections reflect the parallel structure between the Division and Regions. The organizational structure is used to manage day to day Department operations versus the program – element – component budget structure which will be used for program efficiencies.

The Department is recasting its budget under six (6) major programs to realign resources. The purpose is to realign budgeted resources with the organizational structure and update the administrative, fiscal, and other infrastructure systems. The result will be one of support of the overall mission and the organizations that perform the work. The realignment required an analysis, and the shifting of some fund allocations between programs, and possibly between elements within a program. This is a technical change and the Department will continue to perform all current program functions.

The final Phase of this immense project will build component budget allotment information for all programs and organizations within the Department based on funding intent; for a test / pilot system before formally implementing in all programs. Emphasis will be placed on Region 2, as the pilot, for analyses and findings. In the meantime, implementing the components as activities for time reporting will allow the Department to capture expenditures by component to determine and analyze the funds and dollar amounts as they are actually being expensed by organization under each component. This will aid in building very rough initial component budget allotments based on level of effort. The data sets can be reconciled to establish the best baseline for each component in FY 2008-09.

In addition, program components implemented in FY 2007-08 for time reporting will pave the way to making 2008-09 fiscal reporting more transparent, reflective of our business functions, and more realistic in terms of field operations. In summary, the Department recognized the need to realign some fund appropriations in order to locate the funds under the most appropriate program and element description.

Summary Program Structure Changes of Department Programs and Elements:

CURRENT PROGRAMS-ELEMENTS	CHANGES TO PROGRAMS-ELEMENTS
20:00 Biodiversity Conservation	No Change
20:10 Multi Species & Habitat Conservation Planning	20:15 Habitat Conservation Planning
20:20 Biodiversity Protection and Restoration	20:25 Species Conservation Management
25:00 Hunting, Fishing, and Public Use	No Change
25:10 Hunting, Fishing, and Public Use Regulations	25:15 Sport Hunting
25:20 Commercial Fisheries	No Change
25:30 Providing Fishing and Hunting Opportunities	25:35 Sport Fishing
30:00 Management of Department Lands and Facilities	No Change
30:10 Lands	No Change
30:20 Hatcheries and Fish Planting Facilities	No Change
30:30 Wildlife Laboratories	Deleted
40:00 Conservation Education and Enforcement	40:00 Law Enforcement
40:10 Conservation Education	Deleted
40:20 Enforcement and Public Safety	Deleted
	45:00 Communications, Education, and Outreach Program – *New*
50:00 Spill Prevention and Response	No Change
50:10 Prevention	No Change
50:20 Readiness	No Change
50:30 Response	No Change
50:40 Restoration and Remediation	No Change
50:50 OSPR Administrative Support	Deleted

FY 2007-08 & FY 2008-09 Program-Element-Component Budget Structure:

The component part of the program structure is to provide financial information (budget and expenditure data) by program, element, and component beginning July 1, 2008 and continuing. On July 1, 2007, the following list of components was implemented for employee time reporting and is currently being used under each element to capture employee hours. The former FY 2006-07 activities are no longer used. In FY 2008-09, annual budget allotments will also be established for each component to track planned authority with actual expenditures.

FY 2007- 08 Budgeted Expenditures by Component; Period July 1, 2007 – June 30, 2007.

PROGRAM 20 - BIODIVERSITY CONSERVATION $235,369,000	
Element 20:15 Habitat Conservation Planning $165,529,000	**Component #NO**
Component/Activity Title	
CEQA Environmental Reviews	101000
Lake and Streambed Alterations (1600)	102000
Timberland Conservation (THP)	103000
Natural Community Conservation Planning (NCCP)	104000
Conservation and Mitigation Banking	105000
Ecosystem Restoration Program (CALFED)	106000
CESA Incidental Take Permits	107000
Water Rights, Quality, and FERC	108000
MLPA Planning	109000
Invasive Species Planning	110000
Biogeographic Data Management – Habitat Conservation	111000
Biogeographic Data Management – GIS Support & Development- Habitat Conservation	112000
Biogeographic Data Management – Vegetation Mapping- Habitat Conservation	113000
Program Management – Habitat Conservation Planning	114000
Element 20:25 Species Conservation Management $69,840,000	**Component #NO**
Component/Activity Title	
Resource Assessment (Except MLPA)	151000
Ecosystem Restoration Program (CALFED)	152000
Scientific Collection Permits	153000
Wildlife Management	154000
Wildlife Health and Disease Monitoring-Biodiversity	155000
MLPA Implementation	156000
Biogeographic Data Management – Conservation Management	157000
Biogeographic Data Management – GIS Support & Development - Conservation Management	158000
Biogeographic Data Management – Vegetation Mapping - Conservation Management	159000
Program Management – Conservation Management	160000

PROGRAM 25 - HUNTING, FISHING, and PUBLIC USE $68,523,000	
Element 25:15 Sport Hunting $28,484,000	**Component #NO**
Component/Activity Title	
Policy and Regulations	200000
Wildlife Health and Disease Monitoring	201000
Game Conservation Management	202000
Resource Assessment (Except MLPA) – Wildlife	203000
Biogeographic Data Management – Data Development Wildlife	204000
Biogeographic Data Management – GIS Support & Development- Wildlife	205000
Program Management – Wildlife	206000
Element 25:20 Commercial Fisheries $16,364,000	**Component #NO**
Component/Activity Title	
Commercial Fisheries Management	234000
Resource Assessment (Except MLPA) Commercial	235000
Fish Disease Lab Commercial & Aquaculture	236000
Policy and Regulations	237000
Program Management – Commercial Fisheries	238000
Element 25:35 Sport Fishing $20,513,000	**Component #NO**
Component/Activity Title	
Policy and Regulations	268000
Fisheries Disease Lab – Sport Fishing	269000
Fisheries Management	270000
Resource Assessment (Except MLPA) –Fisheries	271000
Biogeographic Data Management – Data Development – Fisheries	272000
Biogeographic Data Management – GIS Support & Development – Fisheries	273000
Program Management – Sport Fisheries	274000
Element 25:40 Outreach/Education $3,162,000 (To be shifted to New Program 45 in FY 2008-09)	N/A

PROGRAM 30 - MANAGEMENT of DEPARTMENT LANDS & FACILITIES $53,342,000	
Element 30:10 Lands and Facilities $25,440,000	**Component #NO**
Component/Activity Title	
Lands Management	300000
Biogeographic Data Management – GIS Support and Management – Lands	301000
Element 30:20 Hatcheries and Fish Planting Facilities $27,212,000	**Component #NO**
Component/Activity Title	
Hatcheries and Fish Planting Facilities	351000
Water Rights, Quality, and FERC	352000
Element 30:30 Wildlife Laboratories $690,000 (To be shifted to Program 25 in FY 2008-09)	N/A

PROGRAM 40 - LAW ENFORCEMENT $60,200,000	Component #NO
Component/Activity Title	
General Wildlife and Habitat Law Enforcement Districts	401000
JEA Activity at Sea	401001
JEA Activity at Dockside	401002
JEA Planning in River & Shore Side Patrol	401003
JEA Planning, Technical, & Program Support	401004
Pollution State Waterways Law Enforcement	402000
Illegal Commercialization – SOU – CALTIP Law Enforcement	403000
Delta Bay Enhanced Enforcement Project (DBEEP) Law Enforcement	404000
Forensics Lab Law Enforcement	405000
MLMA/MLPA Law Enforcement	406000
Abalone Law Enforcement	407000
Public Safety/Mutual Aid	408000
Homeland Security Law Enforcement	409000
Telecommunications – Law Enforcement	410000
Hunter Education & Public Outreach Education	411000
Investigation Services – Internal Affairs Law Enforcement	412000
Hiring – Backgrounds – Recruitment Law Enforcement	413000
Training Academy Law Enforcement	414000
Program Management – Law Enforcement	415000

PROGRAM 45 - COMMUNICATIONS, EDUCATION, and OUTREACH $918,000	Component #NO
Component/Activity Title	
Public Affairs	500000
Youth Educational Services	501000
Interpretive Services	502000
Volunteer Services	503000
Marketing Services	504000

PROGRAM 50 - SPILL PREVENTION and RESPONSE $34,079,000	
Element Description 50:10 Prevention $2,657,000	**Component #NO**
Component/Activity Title	
OSPR Maritime Safety	600000
Element Description 50:20 Readiness $19,597,000	**Component #NO**
Component/Activity Title	
OSPR Drills & Exercises and Contingency Plan Development and Review	621000
OSPR Readiness & Pre-Spill Assessments	622000
OSPR Scientific Study and Evaluation	623000
OSPR Health and Safety	624000
OSPR Water Quality and Analytical Laboratory Support Services	625000
OSPR Alternative Response Technologies	626000
OSPR Training	627000
OSPR Certificates of Financial Responsibility	628000
OSPR Enforcement – Inland	629000
OSPR Enforcement – Marine	630000
Biogeographic Data Management – GIS Support & Development	631000

Element Description 50:30 Response $255,000	Component #NO
Component/Activity Title	
OSPR Inland Oil Response	641000
OSPR Inland Deleterious Response	642000
OSPR Marine Oil Response	643000
OSPR Marine Deleterious Response	644000
Element Description 50:40 Restoration and Remediation $3,208,000	**Component #NO**
Component/Activity Title	
OSPR Resource Injury and Damage Assessment, Remediation and Restoration	661000
Element Description 50:50 Administrative Support $8,362,000	**Component #NO**
Component/Activity Title	
OSPR Support Services	681000
OSPR Program Management	682000

PROGRAM 61 - FISH and GAME COMMISSION $1,345,000 (2008-09)	Component #NO
Component/Activity Title	
Fish and Game Commission	702000

The Department's present system of organizational unit budgeting by program, element, and fund source, while adequate for high level control agency financial reporting requirements, does not provide sufficient programmatic information. As previously stated, to address these shortcomings, the Department is implementing a system of component budgeting that will be aligned with budget act appropriations. It replaces the FY 2006-07 and prior year's activity system. While considerably more complex and sophisticated than the current system of budgeting, these changes will improve management of programs, internal accounting, planning, communication, and the ability to more effectively respond to external inquiries. A key feature is the new program element structure and corresponding components that will provide for reporting program functions, outputs, and outcomes. The Department is committed to meeting its goal of having this system in place effective July 1, 2008. As requested, the Department has prepared responses for various program activities to the best of staff abilities by their description and outputs based on available FY 2006-07 program information. At this time, fiscal information isn't available or reliable at this lower level of activity reporting. The FY 2006-07 former activities addressed in the Department's original response are now incorporated in the new component system and are now stand-alone component functions, or are imbedded within a larger component function. In summary, this is important to understanding the transition from an organizational based budget to a program based budget. Under program component budgeting, the Department will be able to provide a component description, budget, expenditures, outputs, and outcomes.

Legislative Analyst's Office
Supplemental Report of the 2005 Budget Act
2005-06 Fiscal Year

Item 3600-001-0001 Department of Fish and Game

1. ***Report on Activities, Statutory Mandates, Funding Sources, and Outcomes.***

   *On or before January 10, 2006 and extended to January 10, 2008, the Department of Fish and Game (Department) and the Secretary of Resources shall jointly provide a report to the Legislature (including budget and fiscal committees from both houses) on Department's activities, funding sources, and outcomes. In particular, the report shall be based upon a review of the activities carried out by Department…….**(reference Attachment B, Legislative Analyst's Office Supplemental Report Language for the 2005 Budget Act)***

DEPARTMENT RESPONSE:

-- Program 20 --

BIODIVERSITY CONSERVATION

The Department of Fish and Game's (Department) Biodiversity Conservation Program encourages the preservation, conservation, maintenance, and restoration of wildlife resources, including the Ecosystem Restoration Program, under the jurisdiction and influence of the state. Activities involve the conservation, protection and management of fish, wildlife, native plants, and habitat to ensure maintenance of biologically sustainable populations of those species.

The major elements of this Program include:

20.15 – Habitat Conservation Planning

20.25 – Species Conservation Management

STATUTORY MANDATES

Mandates governing activities within the Biodiversity Conservation Program include:

Legal Citations and Authorities

Authority	Section Number or Other Reference
Fish and Game Code	Section 200
Fish and Game Code	Section 400
Fish and Game Code	Section 700-715
Fish and Game Code	Section 1000
Fish and Game Code	Section 1002
Fish and Game Code	Section 1301
Fish and Game Code	Section 1385-1391
Fish and Game Code	Section 1400-1431
Fish and Game Code	Section 1600-1616
Fish and Game Code	Section 1700
Fish and Game Code	Section 1750-1772
Fish and Game Code	Section 1775-1796
Fish and Game Code	Section 1801-1802
Fish and Game Code	Section 1900-1913
Fish and Game Code	Section 1925
Fish and Game Code	Section 1930-1933
Fish and Game Code	Section 2003.5
Fish and Game Code	Section 2050-2116
Fish and Game Code	Section 2073-2075
Fish and Game Code	Section 2077
Fish and Game Code	Section 2079
Fish and Game Code	Section 2105
Fish and Game Code	Section 2150
Fish and Game Code	Section 2600-2651
Fish and Game Code	Section 2700-2729
Fish and Game Code	Section 2760-2765
Fish and Game Code	Section 2780-2799.6
Fish and Game Code	Section 2800-2835
Fish and Game Code	Section 3503
Fish and Game Code	Section 3503.5
Fish and Game Code	Section 3511
Fish and Game Code	Section 3513
Fish and Game Code	Section 3850-3857
Fish and Game Code	Section 4700
Fish and Game Code	Section 4900-4901
Fish and Game Code	Section 5050
Fish and Game Code	Section 5515
Fish and Game Code	Section 5520-5522
Fish and Game Code	Section 5980-6028
Fish and Game Code	Section 6100
Fish and Game Code	Section 6900-6924
Fish and Game Code	Section 7050
Fish and Game Code	Section 7360-7363
Fish and Game Code	Section 13014
Public Resources Code	Section 10001-100005 – Stream Flows
Public Resources Code	Sections 21000-21177 – California Environmental Quality Act

Water Code Water Code Water Code Water Code	Section 4511 – Forrest Practices Act Section 1243 and 1247 – Water Appropriation Section 13000-14958 – Porter-Cologne Act Section 79441 – California Bay-Delta Authority Act Levee Program
16 U.S.C. 661 et seq.	Fish and Wildlife Coordination Act
16 U.S.C. 703 et seq.	Federal Migratory Bird Treaty Act, amended
16 U.S.C. 1531 et seq. 33 U.S.C. 1251 et seq.	Endangered Species Act Clean Water Act of 1972
42 U.S.C. 4321 et seq. P.L. 102-575, Title XXXIV	National Environmental Policy Act, amended Central Valley Project Improvement Act

20.15 CONSERVATION PLANNING

PROGRAM DESCRIPTION

The Department of Fish and Game's (Department) Conservation Planning Program consists of two main sub-programs:

1) Regional conservation planning; and

2) Mitigation/conservation banking.

These two programs are statutorily mandated by the Natural Community Conservation Planning (NCCP) Act (California Fish and Game Code Section 2800 et. seq.) and the Sacramento-San Joaquin Valley Wetlands Mitigation Banking Act (California Fish and Game Code Section 1775 et. seq.).

Program staff in Sacramento headquarters provides statewide policy development, oversight, and coordination for these activities. Program staff also provides permitting assistance for NCCPs and maintains a statewide mitigation and conservation banking database that tracks these banks and provides semi-annual reporting to the Legislature. Regional program staff is more directly involved in working with local applicants on specific plans and banks.

The use of NCCPs has significantly expanded in California in the last few years. More than thirty plans are now under development in five of the seven Department regions (South Coast Region, Inland Deserts Region, Central Region, Bay Delta Region, and the North Central Region). At least two additional plans have the potential to become NCCPs.

KEY MEASURABLE OBJECTIVES

Regional Conservation Planning

Eleven NCCP plans have been approved to date, in the South Coast, Inland Deserts, and Bay Delta Regions. Two additional plans have permits pending (Coachella Valley and Rancho Palos Verdes). The Department has committed to provide significant resources to the implementation of these plans: land acquisition, adaptive management of Department lands in the reserve system, and biological and compliance monitoring.

It is expected that conservation planning efforts will continue at the same level in the next two years. This will include participation in planning and implementation of regional conservation plans throughout the state, which are collaborative efforts and dependent on the support and involvement of local government, private organizations and local landowners; consistent application of policy for conservation plans and mitigation/conservation banks; success in obtaining federal grant funds for conservation planning and land acquisition; tracking and management of mitigation endowment accounts; and the protection of habitat at the ecosystem scale sufficient to ensure recovery of sensitive species.

Mitigation/Conservation Banking

Between July 2005 and September 2006, the Department conducted a compliance check on 28 wetland and conservation banks. Compliance checks were based on one or more of the following specific criteria, including but not limited to:

1) the bank submitted an annual monitoring report which was reviewed by the Department's Regional Offices;

2) the bank has an established endowment fund held by the Department for which mitigation account reports are issued and reviewed twice a year; or

3) the bank has submitted a proposal for amending their bank agreement (triggering a review of existing bank operations).

As of September 2007, the Department has approved a total of 53 banks in California (31 wetland mitigation banks; 22 threatened, endangered, or rare species conservation banks). This figure includes 3 new banks (1 mitigation bank; 2 conservation banks) which were approved in November 2006.

Between 2006 and 2007, the Department assessed the status of existing banks in the following ways:

1) reviewing and updating mitigation bank information for the biennial report to the Legislature, a requirement of Fish and Game Code §1851;

2) reviewing Department held mitigation accounting reports twice a year (these reports, provided by the Department's Accounting Branch, record financial transactions and interest earned);

3) confirming all real estate assurances (i.e. conservation easements or deeds) are executed;

4) thoroughly reviewing existing bank operations, when the need for amending an agreement arises;

5) reviewing annual monitoring reports;

6) reviewing credit transaction statements, supplied by the bank owner/operator; and

7) making periodic site visits to check on compliance with bank agreement or easement conditions, status of habitats, species, or overall bank site condition, or to conduct surveys for species.

It is expected that mitigation banking efforts will continue at the same levels over the next two years and will include the timely review and processing of banking agreements, including compliance checking.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

PROGRAM DESCRIPTION

The Department of Fish and Game (Department) performs the following functions related to implementation of the California Environmental Quality Act (CEQA) Environmental Review Program:

- The Department can act as a CEQA lead agency when it plans to implement its own projects or funds projects with public monies, or issues specific types of project authorizations such as California Endangered Species Act (CESA) Incidental Take Permits (ITP), and Lake and Streambed Alteration Agreements (LSAA), or Natural Community Conservation Plan permits (NCCP).

- The Department can act as a responsible agency when issuing project authorizations, where the primary responsibility is to review an existing CEQA environmental document from another lead agency, and make specific findings as to how the document addresses our CEQA responsibility in the issuance of our authorization.

- The Department can act as a CEQA Trustee Agency in a unique role as the State of California's trustee for fish and wildlife resources and their habitats.

The Department also provides a broad CEQA coordination and consultation function while working with CEQA lead agencies including:

- General development and project planning issues,
- General meetings with counties and lead agencies to discuss CEQA issues, process or compliance,
- Coordination of county wide or area wide wildlife protection strategies to facilitate CEQA compliance,
- Consultation on sensitive species conservation strategies, and
- Consultation on open space and CEQA mitigation land protection and management.

This general role is relevant in all of the CEQA Review sub-programs including CEQA Review, Timber Harvest Plan (THP) Review, and Water Rights Review. Successful implementation of this general CEQA planning and coordination role provides broad benefits for fish, wildlife, and habitat protection and conservation.

The following activities and tasks related to CEQA lead agency consultations are typical for Department CEQA staff:

- Pre-project consultation
- CEQA document triage review
- Response to Notice of Preparation (NOP)
- Project consultation to develop mitigation measures
- Review and comment on CEQA documents [i.e., Negative Declaration (NEG DEC) and Environmental Impact Report (EIR)]
- Public testimony to support department comments
- Mitigation monitoring

CEQA Review:

FY 2006-07 CEQA REVIEW DATA BY REGION (JULY 1- JUNE 30)			
DEPARTMENT REGION	**CEQA DOCUMENT TYPE**	**TOTALS**	**EST. REVIEW (29.5%)**
Region 1			
	EIR	6	
	IS	227	
	NEG	6	
	NEG-MIT	2	
	NOP	5	
Total		246	73
Region 2			
	EIR	44	
	EIR-SUB	2	
	EIR-SUP	5	
	IS	3	
	NEG	125	
	NEG-MIT	63	
	NOD	7	
	NOP	29	
Total		278	82
Region 3			
	EIR	9	
	EIR-ADD	1	
	EIR-REV	3	
	EIR-SUB	2	
	EIR-SUP	7	
	IS	32	
	NEG	97	
	NEG-MIT	112	
	NOE	1	
	NOP	38	
Total		302	89
Region 4			
	EIR	33	
	EIR-SUP	1	
	IS	23	
	NEG	75	
	NEG-MIT	21	
	NOP	36	

FY 2006-07 CEQA REVIEW DATA BY REGION (JULY 1- JUNE 30)			
DEPARTMENT REGION	**CEQA DOCUMENT TYPE**	**TOTALS**	**EST. REVIEW (29.5%)**
Total		189	56
Region 5			
	EIR	31	
	EIR-ADD	1	
	EIR-REV	4	
	EIR-SUB	3	
	EIR-SUP	2	
	IS	4	
	NEG	122	
	NEG-MIT	124	
	NOD	1	
	NOP	85	
Total		377	111
Region 6			
	EIR	55	
	EIR-ADD	1	
	EIR-REV	1	
	EIR-SUP	3	
	IS	1	
	NEG	156	
	NEG-MIT	89	
	NOD	1	
	NOP	60	
Total		367	108
Region 7 (Marine Region)			
	EIR	26	
	NEG	6	
	NEG-MIT	13	
	NOP	20	
Total		65	19

EIR – Environmental Impact Report
IS – Initial Study
NEG – Negative Declaration
NEG-MIT – Mitigated Negative Declaration
NOD – Notice of Determination
NOE – Notice of Exemption
NOP – Notice of Preparation

The Department received $4.76 million in revenue from Environmental Filing Fees in FY 2006-07. The Department's tracking systems currently do not allow reporting of fee receipts by document type.

Timber Harvest Plan (THP) Review:

FY 2006-2007 THP & NTMP REVIEW DATA BY REGION AND COUNTY (JULY 1- JUNE 30)						
	County	# Plans	Desk	% Desk	Full	% Full
Region 1	Humboldt	141	141		15	10.6
	Del Norte	17	17		5	29.4
	Trinity	18	18		13	72.2
	Siskiyou	23	23		18	78.2
	Shasta	42	42		33	78.6
	Lassen	8	8		6	75
	Modoc	2	2		0	0
	Tehama	7	7		6	85.7
Subtotal		258	258	**100%**	96	**37%**
Region 2*						
	Plumas	9	9		1	11.1
	Sierra	1	1		1	100
	Butte	9	9		1	11.1
	Nevada	6	6		1	16.7
	Yuba	5	5		1	20
	Placer	7	7		1	14.3
	El Dorado	13	13		3	23
	Calaveras	2	2		0	0
	Amador	1	1		0	0
Subtotal		53	53	**100%**	9	**17%**
Region 3						
	Santa Cruz	8	8		4	50
	San Mateo	2	2		1	50
	Napa	2	2		1	50
	Lake	2	2		0	0
	Sonoma	19	19		6	31.6
	Mendocino	67	67		28	41.8
Subtotal		100	100	**100%**	40	**40%**
Region 4*						
	Tuolumne	3	3		3	100
	Stanislaus	0	0			
	Merced	0	0			
	Mariposa	1	1		1	100
	Madera	1	1		1	100
	Fresno	9	9		9	100
	Tulare	2	2		2	100
	Kings	0	0			
	Kern	1	1		1	100
Subtotal		17	17	**100%**	17	**100%**
Total		**428**	**428**	**100%**	**162**	**38%**

*Region 2 & 4 Programs began 1/3/2006
NTMP – Non-industrial Timber Management Plan

"Revised" Final

Definitions of "Desk" and "Full Review" for THP Track

"**Desk Review**" of a Timber Harvest Plan (THP) or Non-industrial Timber Management Plan (NTMP) is less than 8 hours (average of 2 hours) of work by an Environmental Scientist. It must include the following:

- Scan and triage plan to determine if it warrants full review or species consultation.
- Enter mandatory fields into THP Track (see next section).
- Review THP for 1611 compliance or notification.

"**Full Review**" of a THP or NTMP includes a "Desk Review" and is a minimum of an 8 additional hours (average of 40 hours) of work by an Environmental Scientist. A full review includes the following additional activities:

- Attend Pre-Harvest Inspection (if scheduled by California Department of Forestry).
- Produce a report, letter, memorandum or e-mail with detailed, site-specific recommendations to reduce the level of impacts on the environment.

THP Tracking of Mandatory Fields

"Mandatory fields" are those fields that are required to have been entered to have a valid record in order to save it.

- Plan Name
- Plan Type
- Plan Number
- Received Date
- County

LAKE AND STREAMBED ALTERATION

Lake and Streambed Alteration Agreement (LSAA) – Section 1600 Program

PROGRAM DESCRIPTION

Fish and Game Code Section 1602 requires any entity to notify the Department before conducting an activity that will substantially divert or obstruct the natural flow of any river, stream or lake; substantially change or use material from the bed, channel, or bank of any river, stream, or lake; or deposit or dispose of debris, waste or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream or lake. An entity notifies the Department of any project that may impact a river, lake or stream by submitting a complete Notification (application) and the appropriate fee based on the Department's fee schedule (as noted on the Department's internet web site: http://www.Department.ca.gov).

The Department must determine whether an agreement is required for the proposed activity based on the information in the notification and any onsite inspection. An agreement is required if the Department concludes that the proposed activity could adversely affect a fish or wildlife resource. In that case, the Department will submit a draft agreement to the project applicant that includes reasonable and prudent protective measures, taking into account the natural history, vulnerabilities and recovery potential of species and habitats at-risk. After the project applicant signs the draft agreement, the Department will complete CEQA compliance for the Department issuance of the agreement. When CEQA is complete, the Department will finalize the agreement by signing it and returning it to the project applicant.

KEY MEASURABLE OBJECTIVES

The Department endeavors to review all notifications it receives annually. Not every notification will require an agreement; emergency notifications are an example of this, but they still require resources to review and process. Key measurable objectives for the LSA Program are the number of projects that the Department is able to complete agreements for in contrast to the number that are approved by Operation of Law (OpLaw).

The Department receives approximately 3,000 LSA notifications annually, and at current staffing levels, 15% are approved by OpLaw. A staff augmentation in FY 2006-07 was responsible for the Department reducing the number of unreviewed, Op-Law approved notifications from 21% to 15%. Within available resources, the Department continuously seeks to augment program resources to improve program performance.

- ***1600 Program*** -- Lake and Streambed Alteration Agreements; the following table provides a report on the number of:

  1) 1600 notifications received, by region (http://www.Department.ca.gov/regions/).
  2) 1600 agreements reviewed, reported by region and level of review.
  3) 1600 Agreements that were issued reported by region.
  4) CEQA documents prepared by Department as the lead agency for a 1600 agreement.
  5) 1600 agreements which became operation by law, reported by region.

In FY 2007-08, the Department will continue to review and process notifications as staffing allows, with approximately 15% total notifications not receiving a review and resulting in approval by operation of law (OpLaw).

FISCAL YEAR 2006-07 LSAA NOTIFICATION BY REGION
July 1, 2006 - June 30, 2007*

Region	Notifications Received	Agreements Issued	Department Lead	Approved by OpLaw
1	597	284	2	130
2	445	208	1	36
3	996	226	2	207
4	218	58	0	9
5	577	78	1	144
6	289	21	0	116
Bay Delta	3	3	0	0
Total	**2,996**	**878**	**6**	**642**

*Data extracted from 1600 Project Tracking August 2007 and regional counts of "emergency notifications."

There are variations in notification counts because notifications are in different stages of the process, and the specific data must be extracted from processing transaction codes entered in Project Tracking. This is also true in the case of notifications that were approved by Operation of Law, or where the Department acted as Lead in preparing an environmental document. Transaction codes are entered into Project Tracking as each phase of process is completed.

Note that the number of notifications received exceeds the number of agreements issued because: 1) project proponents and CEQA lead agencies have not yet completed their procedures in many cases and the agreement is pending, 2) the Department has not been able to prepare agreements for 20% of the notification received and hence these are approved by Operation of Law, and 3) the Department determined an agreement was not required in some instances.

Desk review vs. full review, a concept applicable to the Timber harvest Program, has not been tracked by the Department in the context of Lake and Streambed Alteration.

20.25 BIODIVERSITY CONSERVATION MANAGEMENT (NONGAME WILDLIFE, FISH, AND PLANTS)

PROGRAM DESCRIPTION

This portion of Program 20 works on and encourages the preservation, conservation, maintenance, and restoration of wildlife resources under the jurisdiction and influence of the state. Emphasis is on non-game birds, amphibians, mammals, and reptiles, many of which are either listed as threatened or endangered, or are becomingly increasingly rare and of concern to the state. Activities involve the conservation, protection, recovery, and management of wildlife, native plants, and habitat to ensure maintenance of biologically sustainable populations of those species. Activities are intended to be proactive, rather than merely associated with mitigation or permit compliance; and may involve education promoting habitat conservation and restoration/recovery of species.

Additionally, the program is involved in scientific investigation, surveys, monitoring, and applied research on high priority species in California through resource assessment activities. Activities also include those that directly support and/or benefit the program such as coordinating within the Department, maintaining quality of operations, answering general inquiries, general administration, meetings, seminars, conferences, routine reports, reports to the Commission and Directorate, formal and routine job-related training, and coordination with other agencies.

A substantial work effort for the program involves the review, recommendation, processing and record-keeping for the authorization/issuance of scientific collecting permits and research memoranda of understanding issued to other agencies, academic investigators, consultants, and other people interested in collecting or assessing wildlife.

Petitions to list or delist species from the threatened and endangered species list in California that are submitted (typically from the public) create a responsibility that requires detailed review, analysis, and potentially environmental documentation from the Department.

PROGRAM DESCRIPTION

Annual surveys and monitoring of non-game wildlife is conducted and supported on priority species to the extent funding is available. With hundreds of non-game species occurring in the State, the Program must focus limited resources on those “species of greatest conservation need” and high priority to the State.

Management, conservation, and recovery activities for Program 20 wildlife are conducted throughout the year in coordination with land management agencies (USFWS, BLM, USFS, and Military lands), private landowners, university researchers, and a variety of conservation groups. Research and study objectives to address management issues and to learn more about the habitat relationships of these species with land use and management activities are conducted in coordination with university

researchers. Habitat improvement and habitat restoration efforts are also conducted. For some extremely rare species, and as suitable, captive breeding programs have been initiated to work toward long-term population restoration. Staff participate on recovery teams for federally listed species as representatives of the State (e.g., California condor, Mojave ground squirrel). Development of written recovery plans, species status reports, conservation strategies, resource assessment prospectuses, and/or management plans are fundamental documents for implementing these programs.

Public service in Program 20 involves staff around the state interacting with the public individually, conservation groups, other agencies, private landowners, and academicians to discuss and inform about non-game wildlife programs, provide service, and respond to
inquiries. The Scientific Collecting Permit process requires regular interaction with the public and other scientists seeking permits from the Department to collect wildlife species. Department staff work with and correspond with private landowners and the public regarding interest in conserving or enhancing conditions for wildlife.

Historically, non-game programs in California have not been adequately supported or funded to meet the conservation needs of the hundreds of non-game wildlife species. As a consequence, numerous species are listed as threatened, endangered, or of special concern. The “tax-checkoff” dedicated fund is specifically earmarked for threatened and endangered species efforts; however it generates adequate revenue to address only a few of the listed species in need of work. The program relies heavily on federal match funds to conduct work on rare or endangered species in the State.

STATUTORY MANDATES

Legal Citations and Authorities

Authority	**Section Number /** Species or Management Activity
Fish and Game Code	Section 395-398 Falconry
Fish and Game Code	Section 1770-1772* Species Conservation and Enhancement Account
Fish and Game Code	Section 1801-1802 Conservation of Wildlife
Fish and Game Code	Section 2052; 2061 Endangered Species
Fish and Game Code	Section 2073-2075.5 Threatened and Endangered (T & E) Petition
Fish and Game Code	review and processing
Fish and Game Code	Section 2077 T & E - 5 year review
Fish and Game Code	Section 2079 T & E annual report
	Section 2105 Recovery pilot project Greater Sandhill Crane
Fish and Game Code	Section 2116 Non-native and restricted species
Fish and Game Code	Section 2150 Restricted Species Permits
Fish and Game Code	Section 3511; 4700; 5050 MOUs, scientific collecting permits, permits for fully protected species including public notice and reporting
Fish and Game Code	Section 3850-3857 California condor
Fish and Game Code	Section 5061 Commercial Use of Reptiles
Fish and Game Code	Section 7100 Sport Fishing

[* indicates a Fish and Game Preservation Fund Dedicated account]

State Level Policy

Policies Adopted by the California Fish and Game Commission Pursuant to Section 703 of the Fish and game Code (page numbers from FGC 2007) suggests a workload for the Department:

Raptors (p.836) “raptor populations and their habitats shall be identified, monitored, maintained, restored, and enhanced through research, management, and protection by the Department to insure that the utilization of or impacts to any population of raptor species will not contribute to its depletion in the wild.” Subsections:

- Falconry recognized as legitimate use of this resource
- Captive breeding recognized as “may be an important tool in the re-establishment of endangered or threatened species in the wild
- T & E shall receive maximum protection and management

Endangered and Threatened Species (p. 839) “protect and preserve all native species of fishes, amphibians, reptiles, birds, mammals, invertebrates and plants, and their habitats, threatened with extinction; or those experiencing a significant decline which if not halted would lead to a threatened or endangered designation. The Department will work with all interested persons, agencies, and organizations to protect and preserve such sensitive resources and their habitats.”

PROGRAM OUTCOMES

• Listing and recovery of threatened and endangered species: For what species were listing and recovery actions taken and what were they?

Listing/Delisting Actions FY 2006-07

The Department prepared petitions to delist the following plants:
· Marin bent grass (*Agrostis blasdalei* var. *marinensis*)
· Hanging Gardens manzanita (*Arctostaphylos edmundsii* var. *parvifolia*)
· Slender-pod jewelflower (*Caulanthus stenocarpus*)
· Truckee barberry (*Mahonia sonnei*)

These species are no longer recognized as valid taxa as a result of taxonomic work subsequent to their being listed. Three of the four species, Marin bent grass, Hanging Gardens manzanita, and Truckee barberry, are not considered to be distinct from related species; the fourth species, slender-pod jewelflower, was described from a mixed collection of two different species and does not represent an actual taxon. These plants are now Candidate species for delisting. The final regulatory action will likely occur early in 2008.

A Fish and Game Commission decision about the Department's delisting petition for Siskiyou Mountains salamander (*Plethodon stormi*) is on hold until completion of the Department's environmental document for the action.

The Department received a petition to delist the American Peregrine Falcon (*Falco peregrinus anatum*) as an endangered species. In October 2007, the Department recommended to the Fish and Game Commission that the petition be considered and the Commission agreed. The Department is now evaluating the species to determine if delisting should occur and will present its evaluation to the Commission next year.

The Department received a petition to delist the California brown pelican (pelican; *Pelecanus occidentalis californicus*) in June 2006. In October 2006, we completed our evaluation of the petition for delisting under the California Endangered Species Act. Our recommendation to the Fish and Game Commission was that the petition presented sufficient scientific information indicating the petitioned action may be warranted. Since that time, we have been compiling information on the pelican and working with researchers in preparation for the status review phase of the delisting process.

Recovery Activities for Listed Species

Department staff, U.S. Fish and Wildlife Service (USFWS) staff, and researchers are meeting biannually to review, discuss, and propose conservation and recovery actions for palmate-bracted bird's-beak (*Cordylanthus palmatus* SE/FE). To date, seed from populations have been placed in long-term conservation storage; the genetics of each population have been studied; and projects to improve habitat quality have been implemented.

The Department continued to participate in recovery teams for listed species including the California condor, island fox, and northern spotted owl. Draft recovery plans were completed for the island fox and northern spotted owl during this period. Regulatory changes were proposed by the Department to reduce the availability of lead from center-fire ammunition used in big game and non-game hunting within the range of the condor. This proposed change is currently under review by the Fish and Game Commission. The Department also participated in recovery and technical meetings for giant garter snake, San Joaquin kit fox, the riparian brush rabbit, Xantus's murrelet, and the marbled murrelet.

The Department is working with USFWS to complete a management plan for Xantus's murrelets in the Channel Islands of southern California. Further genetic studies are planned as well, including samples from populations in Baja, Mexico. Conservation and recovery activities for marbled murrelets included work on a management plan for a parcel in the Santa Cruz Mountains, and developing research and monitoring contracts for murrelets in Del Norte, Humboldt, Mendocino, and Sonoma counties.

Research permits were issued for a wide variety of listed plant and animal species (e.g., great gray owl, California least tern, western snowy plover, island fox, San Francisco garter snake, desert tortoise, Santa Cruz long-toed salamander).

Activities Involving Receiving and Disbursing of Federal Funds on Listed Species

Recovery Land Acquisition funding was received for:

- Long Protero Land Acquisition for the Arroyo Toad
- Recovery Land Acquisition for Peninsular Bighorn Sheep, Eastern Riverside County
- Habitat for the Santa Cruz Long-toed Salamander in Larkin Valley
- Recovery Land Acquisition Grant for the Arroyo Toad in Whitewater Canyon, Eastern Riverside County
- Coachella Valley Fringe-toed Lizard

Federal Grant reports were transmitted to the U.S. Fish and Wildlife Service for various grant awards to the Department:

- NCCP Program Implementation and Support
- Investigation of Oregon Silverspot Butterfly Population, Habitat Relationships and Method for Habitat Restoration in Del Norte County, Ca
- Constructing and Refurbishing Light-footed Clapper Rail Nest Platforms, Monitoring Populations, and Detecting and Controlling Predators
- Pollinator Study on Lakeside Ceanothus and San Diego Thornmint
- Demographic and Status Surveys of the Desert Tortoise at Long-term Study Plots
- Preparing and Protecting Western Snowy Plover Nesting Sites, Surveying Nest Status and Managing Predation in Southern California
- Palmate-bracted Birds's Beak Habitat Enhancement Field Trail at Alkali Sink Ecological Reserve
- Shasta Crayfish Genetics and Population Status
- Preparing and Protecting Nest Sites, Monitoring Colony Status, and Controlling Predation and other Threats to Colonies of the California Least Tern
- Mountain Yellow-legged Frog Habitat Restoration
- Analyzing Disease Risk and Translocation Suitability of the California Bighorn Sheep
- Watsonville Slough Ecological Reserve Wetlands and Hydrology Management Planning
- Determining Population Trend and Productivity for and Performing Ecological Investigations of, the Marbled Murrelet in California
- Lahontan Cutthroat Trout Restoration Remediation

Ongoing federal grant projects for listed animals (2006 Section 6) and other projects:

- NCCP Program Implementation and Support
- Recovery Planning Implementation and Support
- Preparing and Protecting Western Snowy Plover Nesting Sites, Surveying Nest Status, and Managing Predation in Southern California
- Owens Pupfish Population Management and Genetic Integrity
- Preparing and Protecting Nest Sites, Monitoring Colony Status, and Controlling

- Predation and other Threats to Colonies of the California Least Tern
- Little Kern Golden Trout Genetic Analysis and Recovery, Third Phase
- Evaluating Augmentation and Reintroduction Options for the Recovery of the Peninsular Bighorn Sheep
- Identifying and Implementation Recovery Actions for the Marbled Murrelet
- Southern East Otter: Implementing Recovery Plan Specific Tasks
- Temporal and Spatial Patterns in Population Trends of the California Clapper Rail in the San Francisco Bay Estuary: Population Models and Development of methodology and Protocol for Long-term Monitoring
- Sierra Nevada Bighorn Sheep: Analysis of Disease Risk and Translocation Suitability of an Endangered Taxon
- Initiating a Conservation Strategy for the Fisher in California
- Constructing and Refurbishing Light-footed Clapper Rail Nest Platforms, Monitoring Populations, and Detecting and Controlling Predators
- Protection of Ione Manzanita Stands from Phyophthora Root Rot
- Continued Assessments of Recovery Requirements for Coachella Milkvetch: Evaluating the Effects of Disturbance, Habitat Fragmentation, and Exotic Species
- Fountain Thistle Habitat Restoration
- Seed Collection and Banking of up to 50 Plant Species of Critical Conservation Concern
- Integrating California Populations of *Fritillaria gentneri* into the 2003 Federal Recovery Plan for the Species
- Temporal and Spatial Resource Exploitation Patterns of the Island Fox: Implications for Conservation
- New Technologies for Island Fox Conservation: Proximity Loggers and Global Positioning System Transmitters

• ***Natural Communities and at risk species (rare, threatened, and endangered and species of special concern): How many and where geographically in the state natural communities and at risk species have been inventoried and are being monitored for change in geographic area and/or species diversity and status.***

Some specific examples of species are highlighted below:

Swainson's Hawk- A statewide survey of Swainson's hawk has been completed during 2005-2007 and is available on the internet http://www.Department.ca.gov/rap/projects/swainsonhawk/. This has established a current base upon which a systematic monitoring program will be based to track the species over time.

Great Gray Owl (Strix Nebulosa)- The great gray owl was listed Endangered by the State in 1980. Since 2005, the program has been conducting surveys for this species throughout portions of the Sierra Nevada; and used radio-telemetry technology to track individual owls to identify nesting, forage, and wintering locations for the owl. Products will include a habitat model of potential great gray owl habitat throughout the Sierra

Nevada, in addition to much needed data identifying great gray owl habitat requirements throughout its range.

Burrowing Owl (Athene cunicularia)- The burrowing owl is a Species of Special Concern to California due to statewide population declines and habitat loss. In 2005, the program began collecting baseline data to begin monitoring population status for the Burrowing Owl at the Yolo Bypass Wildlife Area (Yolo County, CA). We are also assessing the value of artificial nest burrows as a management option in habitat prone to periodic flooding. In 2006, we also began banding owls to determine adult and juvenile dispersal, and population dynamics. We also banded owls and monitored nest sites at the Wildhorse Golf Course (Davis, Yolo County), which has a number of active breeding pairs that use artificial nest boxes. The project received considerable support from the local community, including a 6th grade class of school children which helped build the artificial burrows.

Bank Swallow (Riparia riparia)- The bank swallow is particularly known for nesting in colonies along the Sacramento River. Annual surveys are conducted to assess their habitat and colony sizes. Recent interest in levee repair and potential implications to the bank swallow colonies has elevated the need for timely and current information on the species.

Multi-Species Bird Monitoring – Sierra Nevada Meadows- Bird species abundance and richness in Sierra Nevada montane meadows was sampled at 142 point count stations in fifteen Sierra Nevada montane meadows during May-August 2006. Each point count station was sampled a maximum number of times needed to develop a monitoring protocol and habitat models for the focal species. Focal species were dusky flycatcher, song sparrow, and yellow warbler, which represented common species; and willow flycatcher, Lincoln's sparrow, and Wilson's warbler, which represent rare species. A report on this research is complete, along with a draft monitoring protocol; both will be posted on the Departments website.

Several other species were also studied, surveyed, and monitored in a collaborative effort with the University of California that concluded in 2006-07 and are linked at the following web site: http://www.Department.ca.gov/rap/whc_report.html

Black Rail Metapopulation Dynamics
Delta Smelt Reproduction and Longevity
Bighorn Sheep Disease Transmission Model
Web-toed Salamander Genetic Diversity and Habitat Characteristics
Coastal Sage Scrub Bird Species Niche Models
Coastal Sage Scrub Bird Species Niche Models
Ernest: Great Gray Owl Population Genetics
Santa Cruz Island Fox Response to Predation
American Badgers Status and Habitat Requirements
West Nile Virus Mortality in Corvids

BIOS and California Natural Diversity Database

Additional information on species surveyed and geographic range examined are warehoused in the Department's Biogeographic Information and observation System (BIOS) and California Natural Diversity Database (CNDDB) online catalogs (available through: http://www.Department.ca.gov/biogeodata/). Numerous data sets were added to the BIOS database, and below is a summary of CNDDB changes and additions of species observations to that database.

Between July 1, 2006 and June 30 2007, the CNDDB added or updated 6,550 occurrences for 427 taxa (200 animals and 227 plants). Of these, 52 are federally listed as endangered (28 animals & 24 plants), 17 are federally listed as threatened (12 animals & 5 plants), 2 animals are candidates for federal listing (western yellow-billed cuckoo & Pacific fisher), and 3 animals have been delisted (cackling [= Aleutian Canda] goose, bald eagle & American peregrine falcon). Thirty five are state listed as endangered (20 animals & 15 plants), 20 are state listed as threatened (15 animals & 5 plants), 13 plants are state listed as rare (under the Native Plant Protection Act) and 91 animals are species of special concern. Thirty six of these taxa (20 animals and 16 plants) have both state and federal listing status.

Observation dates ranged from July 17, 1863 to June 21, 2007. There were 37 "Site last seen" dates from the 1800's, 163 from 1900 to 1929 and 375 from 1930 to 1959. The old dates are from museum/herbarium records that document where these species have been found in the past; these records are essential in documenting changes in geographic area occupied by a species. On the other hand, of the 6,550 occurrences added or updated
during this time period, 2,754 (42.0%) had observation dates between 2000 and 2007 and represent recent survey efforts.

The 6,550 occurrences added or updated by region are detailed below. The sum of the regional occurrences is 6,603 due to dual counting of occurrences that overlap regional boundaries.

Region 1 (Northern Region):

582 occurrences for 88 taxa (53 animals, 35 plants), 1 is federally listed as endangered, 1 is federally listed as threatened, 1 is a federal candidate, 3 are state listed as endangered, and 7 are state listed as threatened. One species has both state and federal listing status. Twenty nine animals are species of special concern.

Region 2 (North Central Region):

489 occurrences for 95 taxa (61 animals, 34 plants), 8 are federally listed as endangered, 5 are federally listed as threatened, 2 are candidates for federal listing, 6 are state listed as endangered, 5 are state listed as threatened, 3 are state listed as rare. Six species have both state and federal listing status. Thirty three are species of special concern.

Region 3 (Bay-Delta Region):

1,021 occurrences for 121 taxa (59 animals, 62 plants), 18 are federally listed as endangered, 10 are federally listed as threatened, 15 are state listed as endangered, 6 are state listed as threatened, 3 are state listed as rare. Sixteen species have both state and federal listing status. Twenty eight are species of special concern.

Region 4 (Central Region):

3,243 occurrences for 209 taxa (100 animals, 109 plants), 22 are federally listed as endangered, 8 are federally listed as threatened, 1 is a candidate for federal listing, 18 are state listed as endangered, 9 are state listed as threatened, 3 are state listed as rare. Thirteen species have both state and federal listing status. Fifty animals are species of special concern.

Region 5 (South Coast Region):

630 occurrences for 86 taxa (66 animals, 20 plants), 11 are federally listed as endangered, 6 are federally listed as threatened, 10 are state listed as endangered, 3 are state listed as threatened, 1 is state listed as rare. Ten species have both state and federal listing status. Forty are species of special concern.

Region 6 (Inland Deserts Region):

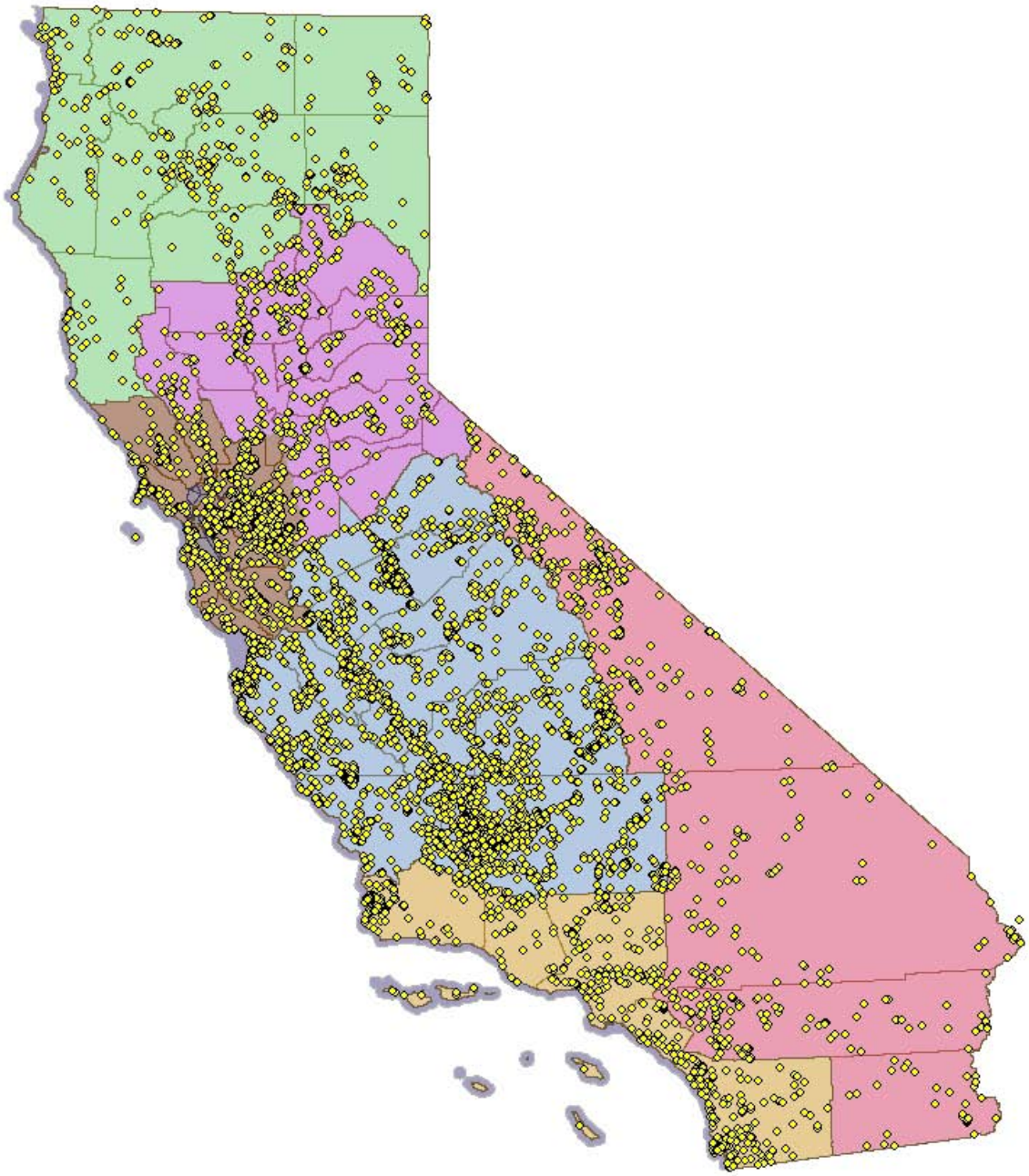
638 occurrences for 116 taxa (51 animals, 65 plants), 10 are federally listed as endangered, 2 are federally listed as threatened, 4 are state listed as endangered, 3 are state listed as threatened, 4 are state listed as rare. Five species have both state and federal listing status. Thirty are species of special concern.

Number of CNDDB Occurrences by Department Region and Species Status

DEPT Region	Number of Occurrences	Taxa	FE	FT	FC	SE	ST	SR	Dual Status	SSC
1	582	88 (53 a) (35 p)	1 (1 a)	1 (1 a)	1 (1 a)	3 (3 a)	7 (5 a) (2 p)	0	1 (1 p)	29
2	489	95 (61 a) (34 p)	8 (3 a) (5 p)	5 (5 a)	2 (2 a)	6 (3 a) (3 p)	5 (5 a)	3	6 (1 a) (5 p)	33
3	1,021	121 (59 a) (62 p)	18 (10 a) (8 p)	10 (7 a) (3 p)	0	15 (8 a) (7 p)	6 (5 a) (1 p)	3	16 (10 a) (6 p)	28
4	3,243	209 (100 a) (109 p)	22 (13 a) (9 p)	8 (6 a) (2 p)	1 (1 a)	18 (9 a) (9 p)	9 (7 a) (2 p)	3	13 (8 a) (5 p)	50
5	630	86 (66 a) (20 p)	11 (8 a) (3 p)	6 (5 a) (1 p)	0	10 (7 a) (3 p)	3 (3 a)	1	10 (7 a) (3 p)	40
6	638	116 (51 a) (65 p)	10 (6 a) (4 p)	2 (2 a)	0	4 (3 a) (1 p)	3 (3 a)	4	5 (4 a) (1 p)	30
TOTAL	**6,603**	**427 (200 a) (227 p)**	**52 (28 a) (24 p)**	**17 (12 a) (5 p)**	**2 (2 a)**	**35 (20 a) (15 p)**	**20 (15 a) (5 p)**	**13**	**36 (20 a) (16 p)**	**93**

FE = federally listed as endangered
FT = federally listed as threatened
FC = federal candidate species
SE = state listed as endangered
ST = state listed as threatened
SR = state listed as rare under the Native Plant Protection Act (plants only)
Dual status = listed under both a state and federal act
SSC = species of special concern (animals only)
a = animal
p = plant

Distribution of CNDDB occurrences added or updated between 1 July 2006 & 30 June 2007



Wildlife Action Plan

The Department completed “California Wildlife, Conservation Challenges” (the state Wildlife Action Plan http://www.Department.ca.gov/wildlife/wap/report.html, which was accepted by USFWS as a requirement of continuing to receive State Wildlife Grant (SWG) funds. The Department is developing an initial implementation strategy for the plan and continuing to carry out programs that contribute to that effort. State Wildlife Grant funding was obtained to develop a conservation strategy for the Western pond turtle and for California’s 15 species of bats. Funding from SWG was also used to conduct resource assessment on a variety of species described previously-- active study and research projects on sage grouse and great gray owl in California were initiated in 2006. Efforts with researchers for potential SWG projects involving fisher demography on Hoopa Tribal land; and California spotted owl response to fire management activities in the central Sierra are in progress.

Species of Special Concern

The program worked with the Fisher Conservation Assessment and Strategy Team that covers fisher habitat in the coastal states from British Columbia to California; and with the USFS to finalize the conservation assessment for fisher in the Sierra Nevada, and attended meetings and provided input on modeling potential impacts to fisher from proposed controlled fire and thinning projects planned for the southern Sierra.

Staff represented the Department at the Biennial Meeting of the Western Bat Working Group (WBWG). Presentations included updates from states and provinces on their progress toward development of bat conservation strategies, including California’s.

The Department made significant progress towards completion of the California Bird Species of Special Concern (BSSC) project. Joint publication with the Western Field Ornithologists is expected by the end of 2007. The BSSC ranking list consists of 39 species and 24 subspecies or geographic populations. Although unranked, an additional 11 taxa also qualified as a BSSC either because they have been extirpated from the state or are listed as federally, but not state, threatened or endangered. A California Bird Responsibility List was also developed; It is intended as a tool for longer-term conservation planning, consisting of 125 taxa that qualified because all or a very high proportion of their global populations occur in the state. The last official bird species of special concern list in 1992, containing 73 bird taxa (60 species, 13 subspecies).

The Department participated in the working group that has focused on the necessary conservation strategy to protect the Tricolored blackbird, a species that has been previously petitioned for listing as an endangered species under CESA. The final conservation strategy and implementation MOA have been completed (in 2007) and signed by all participating parties, including the Department. The Department is also using State Wildlife Grant and Landowner Incentive funds to assist in the implementation of priority conservation actions for this species.

The Program worked to conserve burrowing owls in California, working with Department regional staff, USFWS, researchers, and NGOs (Defenders of Wildlife and Institute for

Bird Populations) to develop components of a statewide conservation strategy for this species. Staff advised and participated on projects, most notably a translocation project in southern California, and statewide surveys for burrowing owls. Staff drafted an interim guidance document for burrowing owl conservation in California to serve until the statewide conservation strategy is completed and participated in developing a burrowing owl research project using NCCP local assistance grant funds, and advised on burrowing owl needs during development of the Imperial County water district conservation plan.

The Program participated in the first annual regional Southwest Partners in Amphibian and Reptile Conservation (PARC) meeting. Our meeting presentation highlighted issues threatening California's native amphibians and reptiles, gave an overview of the various conservation activities occurring, and discussed how our Wildlife Action Plan addresses conservation of amphibians and reptiles in California.

The Program represented the Department at the Declining Amphibian Populations Task Force California-Nevada Working Group annual meeting and participated in drafting of final versions of USFS Conservation Assessments for five amphibians (mountain yellow-legged frog, Yosemite toad, foothill yellow-legged frog, Cascades frog, and northern leopard frog) which are either candidates for federal listing, state species of special concern, or both.

Research permits were issued for a wide variety of special concern species (e.g., western pond turtle, foothill yellow-legged frog, burrowing owl, fisher, ashy storm-petrel). Staff also worked with the License and Revenue Branch to revise the scientific collecting permit forms. During the 06/07 fiscal year, approximately 900 scientific research permits were issued for threatened, endangered, special concern, and non-game species.

WATER BRANCH

The Water Branch in Program 20 is a newly established branch, since August 2006, in the Department that is focused on fulfilling the Department's public trust responsibility by providing sound leadership in the balanced and integrated management of California's water resources, for the benefit of aquatic and terrestrial species and those habitats upon which they depend.

The Water Branch has three major units:

1) the Ecosystem Restoration Program (ERP) and associated grants management,
2) the Bay Delta Conservation Plan, and
3) Statewide Water Planning.

The ERP, with its primary responsibility to restore habitats, ecological functions, and at-risk species, has funded restoration projects over the last seven years ranging from planning and local watershed stewardship programs to research, education, and physical habitat restoration. The ERP has granted funding to hundreds of projects totaling more than $500 million.

The Water Branch is also coordinating and leading the Departments participation in the development of the Bay-Delta Conservation Plan (BDCP). BDCP is intended to be a Natural Community Conservation Plan which would provide for the conservation of the covered species and provide coverage under the California and Federal Endangered Species Acts for on-going operations of the State and Federal water projects. The Department of Water Resources and their contractors along with a number of environmental organizations are working cooperatively, through a voluntary process, to prepare the BDCP.

The Water Branch's statewide water planning responsibilities include coordination and integration of the Department's activities related to water rights, water quality, Federal Energy Regulatory Commission hydroelectric permitting, instream flow, Central Valley water operations, and California Water Plan. The Department is in the process of revitalizing an instream flow program by creating a coordinator position in the current year to develop a list of priority streams, and a plan to implement their evaluation in the coming years. The evaluation process will result in the development of defensible recommendations to protect, mitigate and enhance fish resources as funding becomes available. More information on the Department's stream evaluation program is available in the response to the "Legislative Analyst's Office Supplemental Report of the 2007 Budget Act for the 2007-08 Fiscal Year".

-- Program 25 --

HUNTING, FISHING, AND PUBLIC USE

This program facilitates diverse and sustainable hunting, fishing (recreational and commercial), trapping, and other public uses and associated economic benefits to the state by conserving and managing game species. Activities include collection and assessment of information on the distribution and abundance of game fish and wildlife to determine the appropriate regulations (bag limits, gear restrictions, etc.) and to monitor the effects of those regulations.

The major activities of this Program include:

25.15 -- Sport Hunting

25.20 – Commercial Fisheries

25.35 – Sport Fishing

PROGRAM DESCRIPTION

The Department of Fish and Game's (Department) Program 25 facilitates diverse and sustainable hunting, fishing (recreational and commercial), trapping, and other public uses (wildlife observation) and associated economic benefits to the state. Activities include collection and assessment of information on the distribution and abundance of game fish and wildlife to determine the need for regulations (bag limits, gear restrictions, etc.) and to monitor the effects of those regulations.

STATUTORY MANDATES

Legal Citations and Authorities

Authority	Section Number or Other Reference
Fish and Game Code	Section 203
Fish and Game Code	Sections 207-208
Fish and Game Code	Sections 331-332
Fish and Game Code	Sections 355-357
Fish and Game Code	Sections 450-460
Fish and Game Code	Section 1050
Fish and Game Code	Section 1054.8
Fish and Game Code	Sections 1170-1175
Fish and Game Code	Sections 1200-1206

Fish and Game Code	Sections 1570-1572
Fish and Game Code	Sections 1801-1802
Fish and Game Code	Sections 3000
Fish and Game Code	Section 3003.1
Fish and Game Code	Section 3270
Fish and Game Code	Sections 3400-3409
Fish and Game Code	Sections 3450-3453
Fish and Game Code	Sections 3460-3467
Fish and Game Code	Sections 3500-3516
Fish and Game Code	Sections 3682-3686
Fish and Game Code	Sections 3950-3951
Fish and Game Code	Section 3960
Fish and Game Code	Sections 4000-4004
Fish and Game Code	Sections 4181-4181.5
Fish and Game Code	Section 4370
Fish and Game Code	Sections 4650-4657
Fish and Game Code	Sections 4750-4763
Fish and Game Code	Sections 4800-4809
Fish and Game Code	Sections 4900-4904
Fish and Game Code	Sections 6300-6306
Fish and Game Code	Sections 6400-6403
Fish and Game Code	Sections 6440-6460
Fish and Game Code	Sections 6850-6896
Fish and Game Code	Sections 6900-6924
Fish and Game Code	Sections 7360-7363
Fish and Game Code	Section 7370
Fish and Game Code	Sections 7380-7381
Fish and Game Code	Section 7850
Fish and Game Code	Sections 8430-8437.1
Fish and Game Code	Sections 8460-8492
Fish and Game Code	Section 9004
Fish and Game Code	Sections 10000-10005
Fish and Game Code	Section 13007
Fish and Game Code	Sections 15000-15703

25.15 SPORT HUNTING AND PUBLIC USE

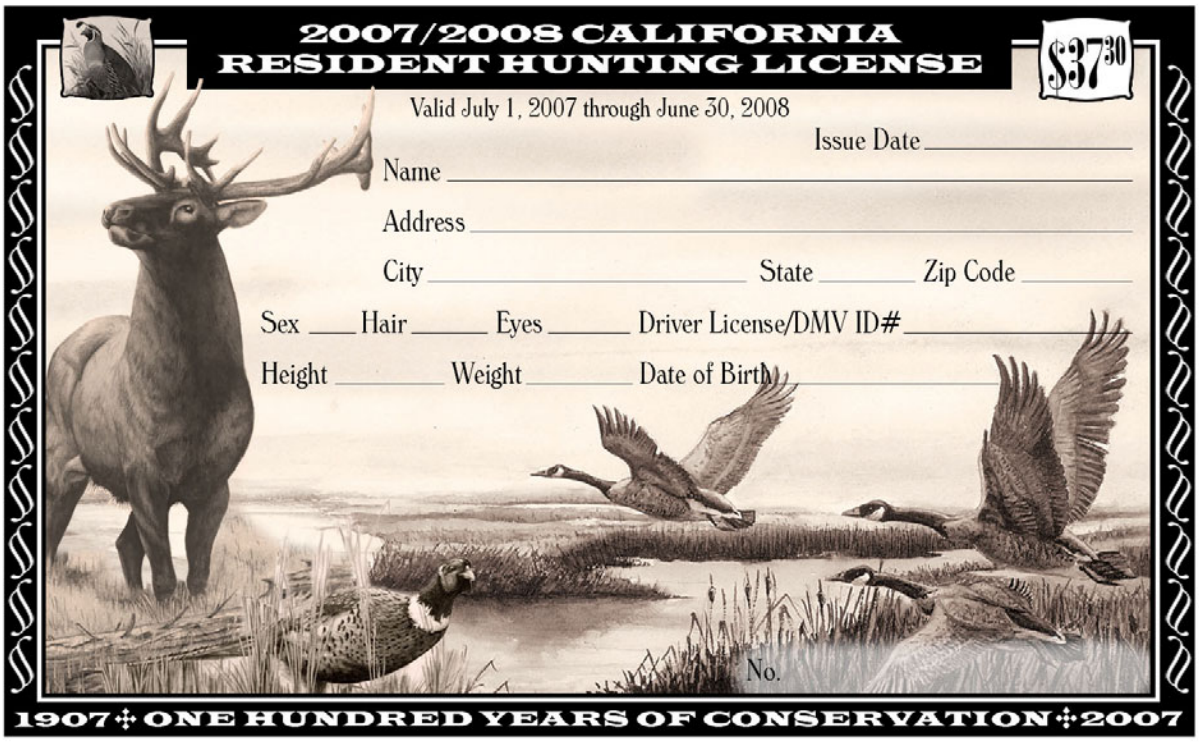
PROGRAM DESCRIPTION

The wildlife species represented by the management activities of **Program 25 - Element 25.15 Sport Hunting** and public use**,** are among the most majestic and recognizable wildlife in the state including Mule Deer, Black Bear, Tule Elk, Bighorn Sheep, Canada Goose, Mallard Duck, California Quail, Ring-neck Pheasant, and dozens of other game mammal and game bird species. Californian's enjoy these species simply as representatives of our wild state as well as for their long-standing importance for recreational hunting.

The primary objective of the program is to conserve and manage game species populations in California and provide a level of hunting by the public that can be sustained. Hunting of game species provides hundreds-of-thousands of Californian's with the opportunity to get out of their offices, cities, and workplaces; to get out into the wild and enjoy California's renewable natural resources with friends and family.

The Hunting and Public Use Program in California represents over 100 years of game species conservation, management, and restoration intended to conserve game wildlife and continue the tradition of sport and recreational hunting. State wildlife agencies were initially established to address public concerns regarding over-hunting and over-fishing of natural resources which led to the establishment of the Department of Fish and Game and programs to protect and manage these species. California has been very successful at restoring game populations and carefully regulating their take or harvest.

In the spring 2007, California celebrated 100 years of hunting with a commemorative hunting license:



Within the Department, Program 25 is responsible for all management, monitoring, and research activities related to these game species and for other large mammals that may be protected or endangered; specifically, the mountain lion and bighorn sheep. Trapping of furbearers is also a component of the program, although there are not very many participants in this activity.

Additionally, substantial effort is expended by the program in dealing with public safety wildlife, nuisance wildlife, and depredation (damage to property) wildlife. The most notable species involved in these issues are black bear, mountain lion, wild pig, turkey, deer, coyote, and Aleutian Canada goose. Nuisance wildlife issues are usually handled

by Program 25 staff who receive telephone calls and emails about raccoon, skunk, opossum, and wild turkey species being a problem in residential areas at the urban/wildland interface.

Disease investigations and wildlife handling and capture expertise provides statewide coverage for surveillance, monitoring, and training in wildlife handling techniques for all department employees.

Annual surveys and monitoring and/or analysis of previous years hunter data are conducted for elk, pronghorn, deer, bighorn sheep, black bear, wild pig, waterfowl, upland game, and trapped species. This information is used in preparation of, or support of existing, environmental documentation to propose the annual hunting seasons for consideration by the Fish and Game Commission. If a species population is assessed and can support hunting activity, a season is proposed; if a species population is found to be declining, the proposal will be for reduced hunting opportunity, or elimination of hunting for that species, or for a particular geographic region.

Management and conservation activities for the Program 25 wildlife species are conducted throughout the year through coordination with land management agencies (USFWS, BLM, USFS, and Military lands), private landowners, university researchers, and a variety of conservation groups. Research and study objectives to address management issues and to learn more about the habitat relationships of these species with land use and management activities are conducted. Habitat improvement and habitat restoration efforts are also conducted.

Public service in Program 25 involves running required “check stations” hunter orientation, or sponsored hunts during hunting seasons for waterfowl (in coordination with USFWS) deer, elk, pronghorn antelope, wild pig, and upland game species. Special hunts are initiated for numerous species. Program staff around the state interact with hunters, sportsmen’s groups, other agencies, private landowners, and non-governmental organizations (NGO) to discuss and inform about hunting and wildlife programs, provide service, and respond to inquiries.

Private Lands Wildlife Management activities includes evaluation of compliance of private lands management (PLM) areas with specified habitat improvements, documentation and development of recommendations for Fish and Game Commission action on accepting plans and issuing hunting tags, and contact with interested landowners regarding enrollment in the program. This program is well-liked and as such could expend more than available funding. The program uses dollars from the dedicated deer program to complete the annual tasks; and because of its popularity (growing from 72 to over 90 properties since 2001) and limited resources, the Department has established a waiting list for new participants.

The SHARE program, established by Fish and Game Code Sections 1570-1574 Recreational Enhancement Program has not been approved for funding by the Legislature. To demonstrate the value and utility of what this new program could accomplish however, NGO’s supported a public hunt with a one-time grant in funds during 2006-07 FY along the North Coast for Aleutian Canada geese that were causing a problem for private landowners. Department staff participated in ensuring the success

of the hunt and it was well received by landowners, hunters, and the Department. The program has potential elsewhere in the State to deal with problem wildlife issues while at the same time offering hunting opportunity.

Nuisance, Depredation, and Public Safety Wildlife activities continue to grow each year, and are not adequately funded (sections 4180-4190, 4800-4809). To comply with this mandate, the Department uses appropriate available resources from game programs and user-paid hunting fees to address these problems. For example, there is no funding for addressing mountain lion or black bear damage problems, yet the problems with these species seem to be at an all-time high. Problems with bears in the Lake Tahoe Basin are the worst they have ever been. As these issues are not related to hunting, these activities should not be funded by game and user-paid hunting fees. Since these activities benefit Californian's all over the state, the Department efforts in this area may be more appropriately supported by a broader based fund source.

Wildlife Investigations of wildlife disease continue to grow in importance. Study of Chronic Wasting Disease continued, and new funds for monitoring wild birds for potential Avian Influenza was initiated in 2006-07. Throughout the Central Valley, samples of waterfowl species were taken for testing of Avian Influenza.

In 2006-07 fiscal year, the issue of lead ammunition (bullets) for big game and nongame hunting and the potential risk of lead poisoning to the endangered California condor increased in controversy. The Department staff in Program 25 worked to propose alternatives for the Commission to consider to protect this endangered species.

STATUTORY MANDATES

Legal Citations and Authorities

Authority	**Section Number /** Species or Management Activity
Fish and Game Code	Section 331 Pronghorn Antelope Management, Hunting, and Authorization of Auction Tag
Fish and Game Code	Section 332 Elk Management, Hunting, and Authorization of Auction Tag
Fish and Game Code	Sections 450-460 Deer Herd Management
Fish and Game Code	Sections 1570-1574 Recreational Enhancement Program (SHARE)
Fish and Game Code	Sections 1801-1802 Conservation of Wildlife
Fish and Game Code	Sections 3400-3409* Private Lands Wildlife Habitat Enhancement & Management
Fish and Game Code	Section 3685 Upland Game Bird Opportunities and Outreach
Fish and Game Code	Sections 3700-3705* Migratory Waterfowl Management
	Sections 3860-3864 Avian Influenza Monitoring and Detection Efforts
Fish and Game Code	Sections 4180-4190 Depredation and Nuisance Wildlife
Fish and Game Code	Section 4334* Deer Fund-raising tags for Deer Herd Management Plan Implementation Program
Fish and Game Code	Sections 4651,4656* Wild Pig Management
Fish and Game Code	Sections 4800-4809 Management of Mountain Lion Damage and Depredation
Fish and Game Code	Sections 4900-4904* Management of Bighorn Sheep

[* indicates a dedicated account]

PROGRAM OUTCOMES

The outcomes, progress, and success of the game management programs are measured first by assessment of the species populations and their status (by specific program unit below). Species of long-term stability and capability to sustain numbers while allowing hunting are proposed to the Fish and Game Commission to set seasons and harvest levels. This provides the second outcome which is a hunting season for each specified game species and is translated into hunting opportunity and enjoyment of wildlife by the public. Hunting success varies by species, and may be as low as 10% for some species or zones. The only game species that the Department has reduced opportunity on by the 2006-07 year is sage grouse in Mono County due to declining numbers and increased concern about their populations. Hunting opportunities have been severely curtailed and intensive research efforts are ongoing on this species to examine potential factors affecting their numbers. This species is known to be susceptible to West Nile Virus.

Nuisance, Depredation, and Public Safety Wildlife activities are expected to continue to grow and be a problem for the Department. Programmatically, we are evaluating capability to redirect funds from appropriate sources to better deal with these problems. However, a true and legitimate program is needed to truly address California's rapidly expanding urban wildlife problems.

Avian Influenza monitoring efforts will result in a statewide monitoring plan regarding wildlife in 2007-08 (draft plan is completed and submitted). Through summer 2007, monitoring efforts have not detected the highly virulent form of Avian Influenza.

The unfunded, but necessary work on condor/lead relationships is being conducted within the program. Recommendations to the Fish and Game Commission are expected for FY 2007-08.

The Private Lands Management and SHARE programs both need an infusion of funds to more fully implement these programs that provide benefit and collaborative working relationships among the Department, landowners, and the hunting public. Department staff are working on proposals to address these issues in 2007-08.

Surveys, Estimated Population, Harvest, and Public Use: Upland Game Species

<u>Surveys and Estimated Populations</u>

* Mourning doves: Surveys are conducted on 60 twenty-mile survey routes annually, in conjunction with a larger, national effort coordinated by the U.S. Fish and Wildlife Service. Cage capture, leg-banding, and release of doves is also done annually, as part of a national effort to better estimate age-specific survival rates and harvest rates. Estimated population in California: roughly 20 million.

* Sage grouse: Surveys are conduct on about 50 strutting sites (mating grounds or "leks") annually. Estimated population: about 3,000 in Spring.

* Band-tailed pigeons: California is cooperating with other western states and the US Geological Survey to better monitor the Pacific Coast population of band-tailed pigeons. Counts are conducted at 16 mineral springs which attract pigeons. This information, combined with that from other states, will provide an index of the population.

* Other upland game species, including wild turkeys, blue and ruffed grouse, quail, pheasants, chukars, rabbits, and squirrels: annual surveys of populations generally are not conducted; population estimates are based on estimating area of occupied habitat, then applying average densities for each species based on published scientific literature.

Estimated Hunter Days and Harvest (from 2004 Hunter Survey – most recent data available, these estimates are considered stable during the past five years)

Upland Game Species	**Number of Hunters**	**Hunter days**	**Harvest**
Pheasants	39,000	165,500	133,000
Quail	70,000	401,000	685,000
Doves	88,700	407,200	1,904,300
Band-tailed Pigeons	5,100	13,500	14,600
Chukar Partridge	10,500	47,800	63,900
Blue and Ruffed Grouse	6,500	34,200	11,300
Sage Grouse	155	300	180
Rabbits	17,900	142,500	125,700
Tree Squirrel	10,500	82,500	59,600
Wild Turkeys	25,400	141,100	25,200
		1,435,600	

On-going Projects in the Department's Upland Game Program

1. **Sage grouse research** - Prompted by growing concern over sage grouse populations and sagebrush habitats, an extensive sage grouse research project is being conducted in Mono and Lassen counties, in conjunction with the University of Idaho. This project will focus on estimating sex-and-age-specific movement patterns, home ranges and survival, nest success, natal dispersal, genetic differences in populations, and seasonal habitat use. Radio-telemetry will be used extensively in this work.

2. **Refinement and Implementation of Pheasant Habitat Management Guidelines** - Pheasant numbers in California's Central Valley have decreased dramatically because of increasingly intensive farming practices. The result has been that many of the remaining pheasants are on areas managed as wildlife habitat, such as Department Wildlife Areas and private hunting clubs. The Department has determined that, by managing a small proportion of available habitat that will increase survival of young pheasants, populations can be increased dramatically. This information is being provided to public/private landowners and managers.

3. **Public Outreach and Information Dissemination** – As is the case with other units within the Wildlife Branch, the Upland Game Program emphasizes providing information to the public and other agencies. Several hundred inquires from upland game hunters are answered annually, and publications such as guides to hunting turkeys and quail are prepared and distributed. A major public outreach effort is the Department's Special Hunts Program, under which about 250 hunts are offered for pheasants, quail, doves, and turkeys.

Surveys, Estimated Population, Harvest, and Public Use: Ducks and Geese

Ducks and geese are migratory birds, which mean that all or some of their populations occur in different areas of the world in different seasons (summer and winter). In California, our game management actions affect 36 species of migratory game birds from two taxonomic families.

Migratory game bird population information is based on: 1) Estimates of their breeding populations in key (but not all) portions of their summer range; 2) Trends in winter indices (not absolute counts) because obtaining an absolute measure of population size for most wildlife species is not possible; and 3) information on harvests and more importantly harvest rates from banding data. Because harvest areas (e.g., states or other units) contain birds that breed in many different areas, a simple harvest estimate of a species (e.g. mallards) or species group ("ducks") is not a complete metric for assessing the biological or economical effect of management. Instead, banding data is more useful to assess management in the context of harvest rates or winter distributions of particular stocks of ducks and geese.

1. "Harvestable Surplus"

Because not all of the breeding and wintering ranges of ducks and geese are surveyed, and sufficient resources are not available to annually estimate recruitment (the addition of new birds into the population) within the surveyed areas, it is not possible to stipulate the absolute number of ducks and geese that constitute the population prior to the harvest. Further, weather and habitat conditions between breeding and wintering grounds influence the number and distance of migrating individuals. In addition annual harvests vary and are not predictable due to factors other than harvest regulations (e.g. weather and hunter participation). Thus, it is not possible to explicitly stipulate a "harvestable surplus" on an annual basis. Instead, managers use all of the resource assessment information from trends in population estimates and indices, trends in winter distribution indices, measures of harvest and harvest rates, in combination with mathematical models to develop specific regulatory recommendations (e.g. season lengths and bag limits for harvest regulations) and for other management prescriptions on annual and longer cycles.

2. Number and types of surveys

Breeding population surveys

Breeding population surveys that measure the number the breeding ducks in key North American areas in Canada, the north-central United States and Alaska (ducks from all these areas spend their winters in California) are conducted by the U.S. Fish and Wildlife Service (USFWS) and the Canadian Wildlife Service (CWS). These surveys encompass the breeding areas for approximately 50 percent of the continental population of ducks and are most reliable for early nesting species, such as mallards and pintails. Many ducks nest in areas outside the survey areas. A breeding waterfowl survey has been conducted in California by Department since 1948, although the methodology was revised in 1990 to make the survey results more comparable to the USFWS/CWS surveys.

Goose populations are estimated in generally similar manners but not necessarily on an annual basis and thus the breeding populations can not be combined as easily. Geese that winter in California include:

Snow geese from Wrangel Island, Russia
Snow geese from the western Canadian Arctic
Ross' geese from the eastern Canadian Arctic
Canada geese from the Rocky Mountain Population
Canada geese from the Pacific Population
Canada geese from the Aleutian Population
Canada geese from the Cackling goose Population
Canada geese from the Taverner's Population
Canada geese from the Lesser Canada goose Population
White-fronted geese from the Pacific population
White-fronted geese from the Tule population
Black brant of the Pacific population

Wintering Population surveys

In early January of each year, coordinated, aerial and ground surveys of the important waterfowl wintering areas are conducted by the Department and USFWS biologists to provide an index of the post-hunt populations of waterfowl in California. These surveys are coordinated with other states as well. These surveys only provide indices of the total number of each species of waterfowl, because surveys are restricted to the most important wintering areas. This survey, the Midwinter Waterfowl Survey, is the oldest of the continental surveys, having been conducted in one fashion or another throughout the conterminous United States since 1936. Once the primary means of monitoring population status, it now supplements the better information obtained for some species from various breeding population surveys.

The Midwinter Waterfowl Survey is not a total census; it is, instead, an index of waterfowl populations. Variations in survey coverage, weather, observers, and distributional patterns of waterfowl in the Pacific Flyway markedly influence these annual indices. These indices describe population trends and changes in distribution

rather than a measure of total population size. Since 1955, survey methods have been consistent and data have been more comparable.

Banding

Each year, birds are captured and marked by Department, USFWS, and private waterfowl conservation organization biologists with individually numbered leg bands to determine where and when birds are taken by hunters. The Department has banded more than 600,000 waterfowl in California since 1947. Analyses of band returns (recoveries) from hunter-killed birds form the basis for delineating the administrative flyways and provide estimates of harvest rates. Analyses of band recoveries have been the primary method used to assess the impact of hunting mortality on waterfowl populations. These analyses, using mathematical models and computer programs, are based on the number of bands recovered through time compared with the number of bands originally put on birds.

3. Population Estimates

Breeding population surveys

In 2006, the USFWS/CWS survey estimated 36.2 million ducks, up 14 percent from the 2005 estimate and 9 percent above the long-term (1955-2005) average. The estimated breeding population of ducks in California in 2006 was 649,000, up 5% from the 2005 estimate and 7% above the long-term average. In 2007, the USFWS/CWS survey estimated 41.2 million ducks, also up 14 percent from the 2006 estimate and 24 percent above the long-term (1955-2006) average. The estimated breeding population of ducks in California in 2007 was 627,000, down 3% from the 2006 estimate but still 4% above the long-term average. Estimates of breeding ducks that will winter in California that originate in other areas are not available.

Wintering Population surveys

The following table summarizes the 2007 Midwinter Survey and compares it to 2006 and the long-term averages.

	2007	2006	Long-term Average
Ducks	4,100,000	3,800,000	3,700,000
Geese	1,000,000	900,000	700,000

4. Harvests and Hunter effort

The following table summarizes federal harvest estimates and estimates of hunter activity. Similar estimates are generated by the State, however estimates for 2007 are not yet available.

	Harvests			Hunter-days		
	2006-07	2005-06	Average	2007	2006	Average
Ducks	1,480,000	1,327,000	1,175,000	521,100	486,700	472,000
Geese	146,000	147,000	117,000	*	*	*

* = the federal harvest surveys do not independently estimate duck and goose hunting activity.

Surveys, Estimated Population, Harvest, and Public Use: Deer

Number/Type/Result of surveys conducted:

Deer surveys are conducted utilizing helicopters flying random transects as well as ground vehicles conducted utilizing the "directed search" method. A total of 283 in FY 05/06 and 343 in FY 06/07 helicopter flight hours were scheduled for deer surveys in addition to the ground counts conducted by region personnel. The results of the surveys were population estimates for each of California's deer zones, as well as harvest recommendations provided to the Fish and Game Commission.

Species harvest:

2005 Reported -	bucks:	15,948	Estimated – bucks:	29,021
	does:	482	does:	545
	total:	16,430	total:	29,566
2006 Reported -	bucks:	15,692	Estimated – bucks:	27,872
	does:	459	does:	529
	total:	16,151	total:	28,401

Public use (2005 & 2006 hunter days):

Approximately 150,000 deer hunters each year; assume the average hunter spends between 3 and 5 days in the field. Estimated hunter days = 450,000 to 750,000 per year.

Surveys, Estimated Population, Harvest, and Public Use: Elk, Pronghorn Antelope

Number/Type/Result of surveys conducted:
Elk counts are conducted using fixed-winged aircraft, helicopter, and ground counts. . Owens Valley was surveyed using fixed-winged aircraft and ground crews in early August.

Lake Pillsbury was surveyed on the ground during late August. The La Panza area was surveyed over several months (Nov-March) from fixed-winged aircraft and on the ground. Northeastern California and the Cache Creek area were surveyed during February using a helicopter. The results of the surveys were population estimates for

each of California's elk hunt areas, as well as harvest recommendations provided to the Fish and Game Commission.

Antelope counts are conducted over 5 days from fixed-winged aircraft in late winter. The results of the survey was an overall population estimate (2005/06 survey = 4,131, population estimate = 4,254; 2006/07 survey = 4,270, population estimate = 4,400), as well as harvest recommendations provided to the Fish and Game Commission.

Species harvest:

2005: A total of 429 elk tags were available in the 2005 hunting season, resulting in the harvest of 282 animals (hunter success rate = 66%). A total of 279 pronghorn antelope tags were available during the 2005 hunting season, resulting in a harvest of 229 buck pronghorn antelope (hunter success rate = 84%).

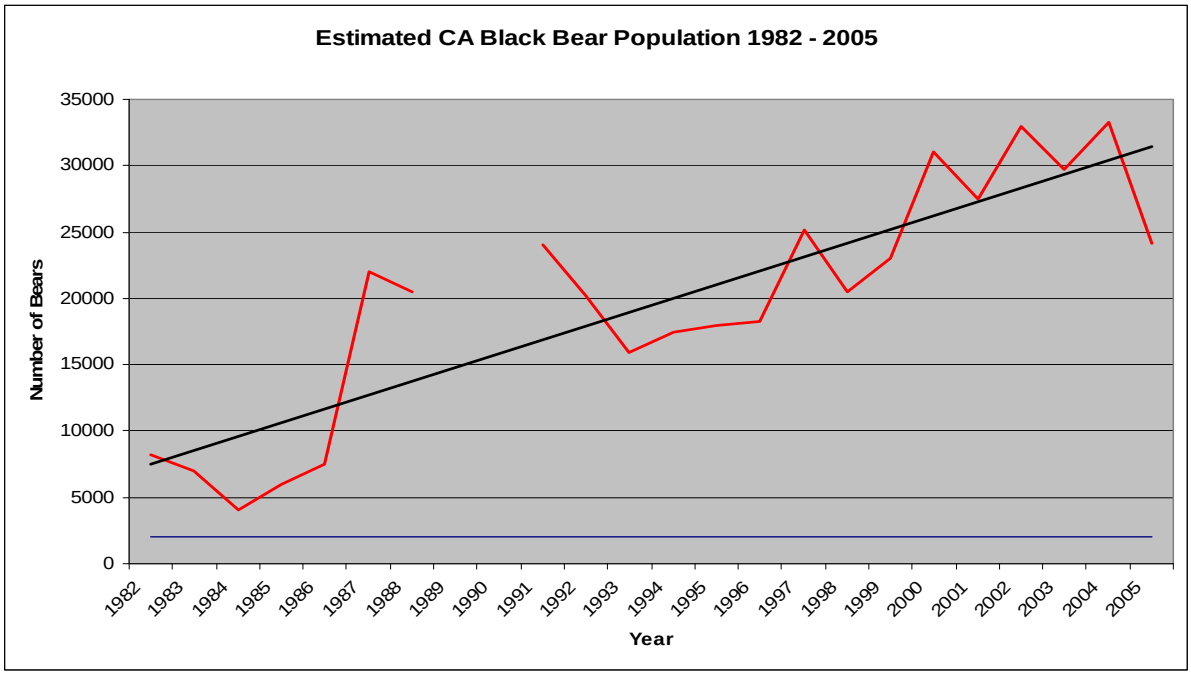
2006: A total of 528 elk tags were available in the 2006 hunting season, resulting in the harvest of 339 animals (hunter success rate = 64%). A total of 273 pronghorn antelope tags were available during the 2006 hunting season, resulting in a harvest of 222 buck pronghorn antelope (hunter success rate = 80%).

Public use:

Assume the average hunter spends between 3 and 5 days in the field. For 2005, total hunter days for elk = 1,287 – 2,145 days; total hunter days for pronghorn antelope = 837 – 1,395 days. For 2006, total hunter days for elk = 1,584 – 2,640 days; total hunter days for pronghorn antelope = 819 – 1,365 days.

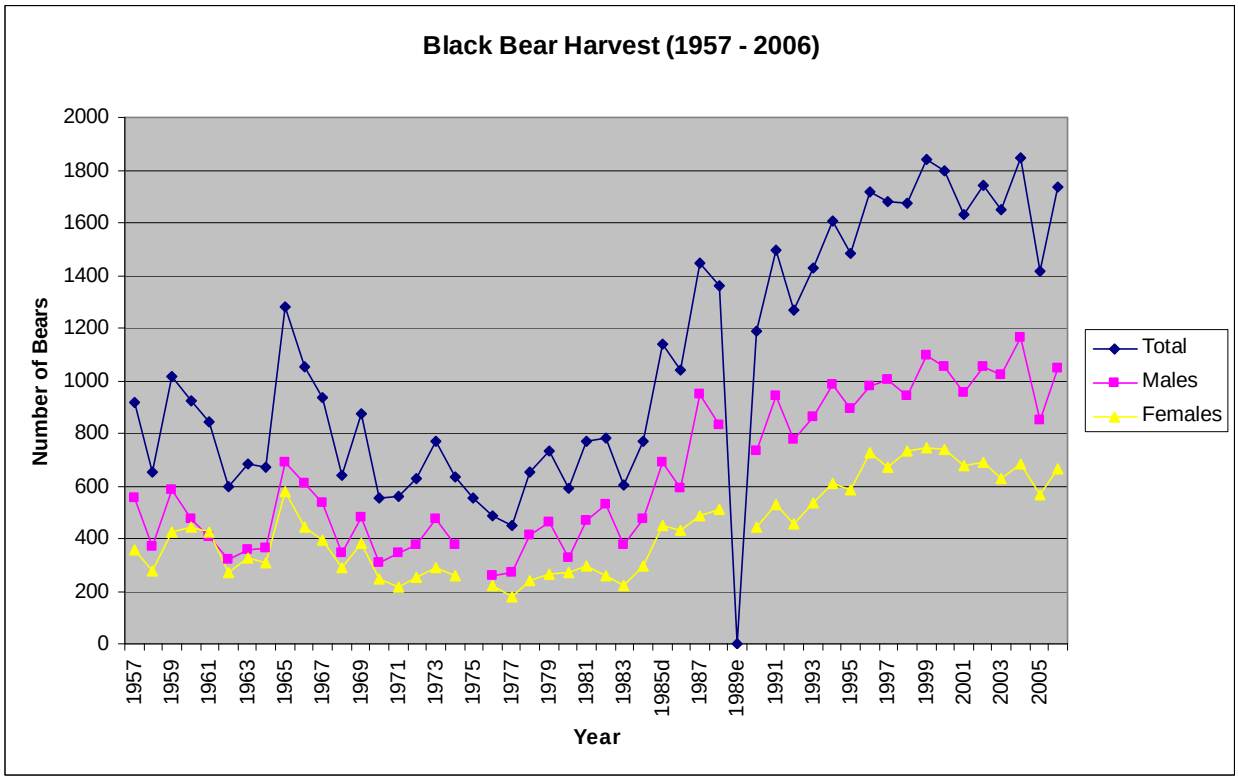
Surveys, Estimated Population, Harvest, and Public Use: Black Bear, Wild Pig. Bighorn Sheep

Black Bear Population Survey and Status -The black bear population is annually estimated by multiplying the number of bears taken by hunters times a harvest factor, which is determined by analysis of age data. The harvest factor represents the age at which the number of females taken by hunters equals the number of males taken. This is determined by linear regression. The intersection of the female age line and male age line represents the harvest factor. The black bear population in California shows a stable to increasing trend. ***Refer to Table below; note that gap in table is due to no "take" during 1989 and 1990 which prohibited an assessment of 1991 population.***



Harvest and Public Use - Only one bear can be taken by a licensed hunter annually. A total of 24,076 bear tags were sold in 2006 with 23,911 resident and 165 non-resident tags. Non-resident tag sales decreased in 2006, comprising about one-half of one percent of tag sales. A total of 1,822 black bears were reported taken in 2006 and overall hunter success was 7.6%, about the same as 2005. ***Refer to Table below; note that gap in table is due to no "take" during 1989 and 1990.***

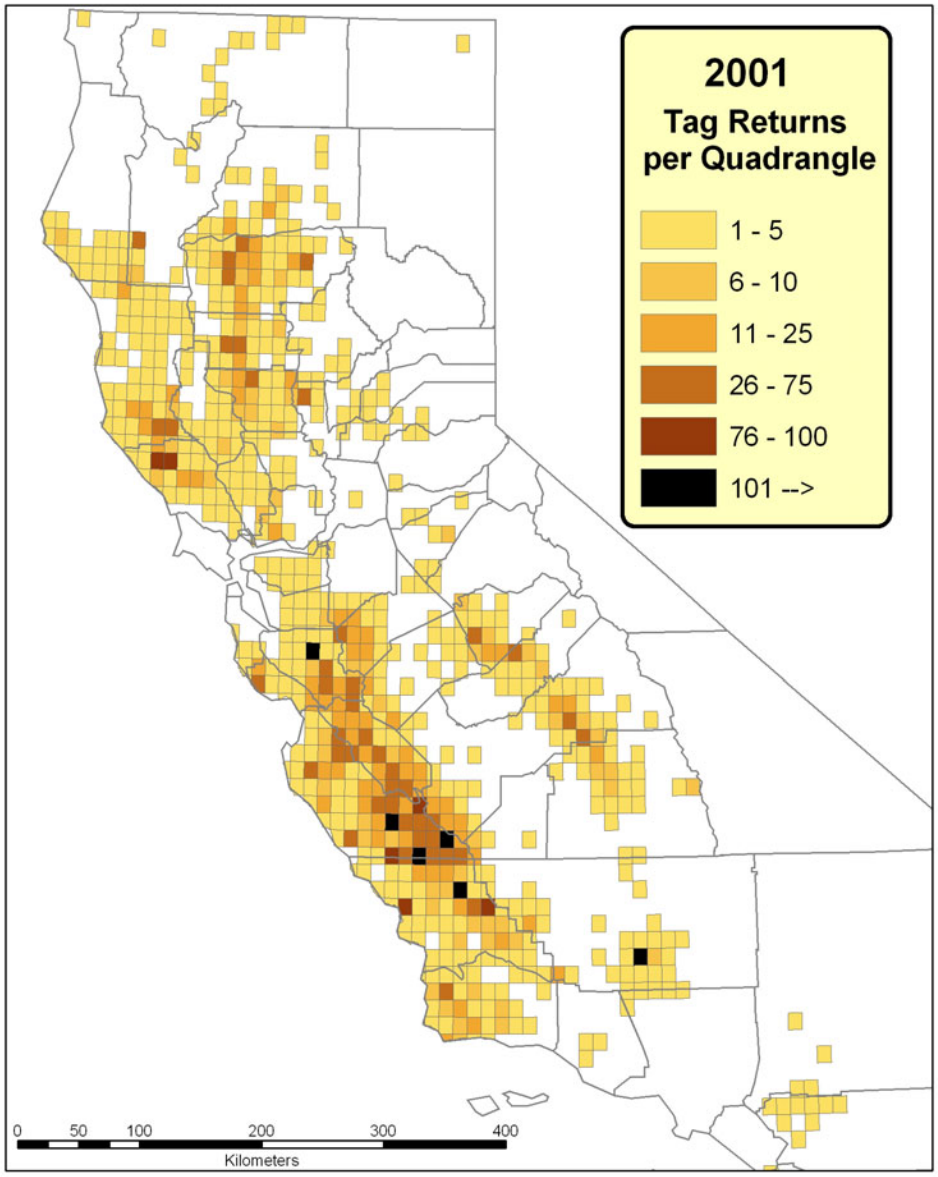
Ninety-three percent of successful hunters and 3.5% of unsuccessful bear hunters indicated the number of days they spent hunting on their report cards. Successful hunters spent an average of 4.1 days and unsuccessful hunters spent an average of 8.6 days hunting bear.



Wild Pig Population Survey and Status -The number of wild pigs is estimated by multiplying the number of pigs reported taken times an estimate of unreported take. This estimated harvest is expanded to the entire population by assuming an eight percent harvest rate. Wild pig populations vary greatly from year to year, depending on the quantity of forage available to them. The current estimate of the number of wild pigs in California is between 500,000 and 1,000,000 pigs. Population numbers are increasing as they continue to expand into new range.

Harvest and Public Use - There is no limit on the number of wild pigs that can be taken by licensed hunters. A total of 40,315 pig tags were sold, which included 32,455 individual resident tags, 270 nonresident tags and 7,590 lifetime tags. Successful hunters returned 5,453 wild pig report cards.

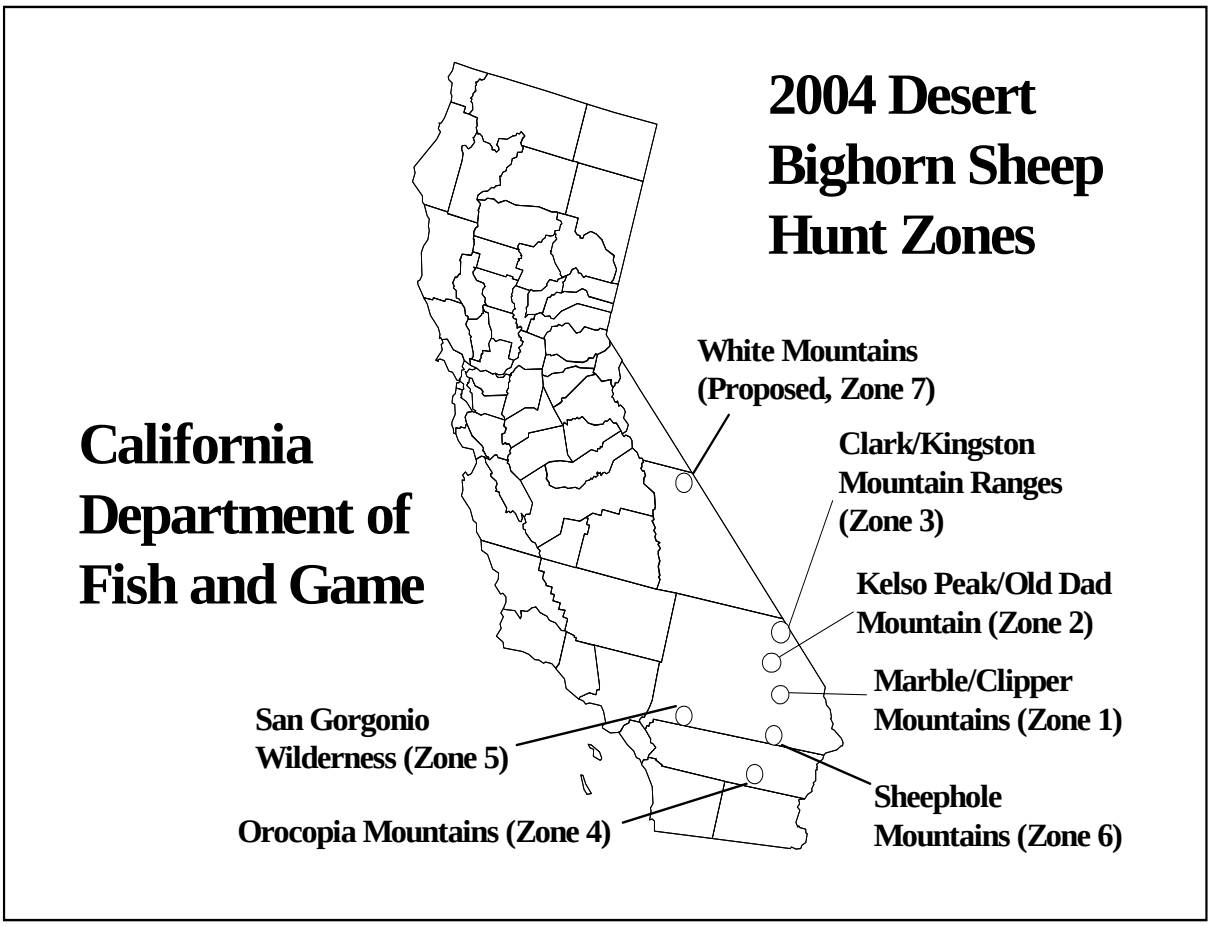
The distribution of hunter-killed wild pigs follows the pattern in the following map of tag returns for 1992-2001.



California Wild Pig Tag Returns
July 1, 1992 through June 30, 2001
Time Series

Bighorn Sheep Population Survey and Status - We have used historical and current data from ground, waterhole, and aerial surveys to categorize and estimate these populations. Although the population estimates vary in precision, we believe the size classes are large enough to provide an accurate and conservative assessment. Our defined metapopulations are summarized by size classes, and population estimates are subsequently computed by totaling the median interval estimates. In 2000, we estimated that there are about 3,520 bighorn sheep distributed across 61 mountain ranges in California. The Sierra Nevada metapopulation is estimated to number approximately 120 individuals. The Nelson metapopulations of desert sheep total approximately 3,400 individuals.

Harvest and Public Use – Only Nelson bighorn sheep are hunted. The estimated number of Nelson bighorn rams is based on annual population surveys conducted by the Department. The location of the hunting areas for Nelson bighorn sheep are shown in the following figure:



The number of bighorn sheep hunting tags provided is no more than 15 percent of the mature Nelson bighorn rams estimated in the hunt areas in a single year. In 2007, there are a total of 21 tags issued for bighorn sheep. The hunter success is always at or near 100%. Hunters typically spend 2-3 weeks hunting for bighorn.

Approximately 8,000 hunters applied for the 21 tags issued in 2007.

25.20 COMMERCIAL FISHERIES

PROGRAM DESCRIPTION

The Marine Region is responsible for protecting and managing California's marine resources under the authority of statutes and regulations created by the State Legislature, the Fish and Game Commission (Commission) and the Pacific Fishery Management Council (PFMC). The Region, in its present form, was established in November 1997, as an outgrowth of planning actions taken by the Department of Fish and Game (Department) in the mid-1990s to increase its effectiveness. In addition to a new consolidation of programs, we have adopted a management approach that takes a broader perspective relative to resource issues and problems. This ecosystem approach considers the values of entire biological communities and habitats, as well as the needs of the public, while ensuring a healthy marine environment. It involves field staff with various areas of expertise and considers the marine environment on a statewide basis. This approach is different from traditional State marine resources management, which has focused on individual species or fisheries and has been limited in involvement of all entities with an interest and a stake in the future of California's marine resources.

Much of the Marine Region's focus for the foreseeable future will be on implementing the provisions of the Marine life Protection Act (MLPA) and Marine Life Management Act (MLMA). In addition, we will devote resources to discharging our responsibility as the trustee of the State's marine fish and wildlife resources while working in the habitat conservation arena. One of the critical needs for accomplishing all of these goals is having adequate, scientifically sound data.

The Need for More Complete Data to Support Management

Good fisheries management has always relied on data about the health of targeted stocks. However, additional information is needed regarding marine ecology, essential habitats, and natural processes that affect fish populations, as well as the interactions between different species complexes and the fisheries that pursue them. Without complete *fisheries dependent* data, uncertainties in the amount of fish caught annually can lead to premature fishery closure, or worse, unexpected and potentially significant declines in fish stocks. Without *fisheries independent* data on both the status of populations and the habitats upon which they depend, unseen uncertainties in stock status and environmental impacts may lead to errors in management decisions. In addition, it is critical that management decisions are monitored for effectiveness. Therefore, it is a Marine Region priority to collect essential data and analyze and apply them to the decision making process for FY 2007-08. This priority is clearly reflected in our current organizational structure, program and project descriptions and work plans which were used to generate our list of key, measurable (planned) objectives for FY 2007-08.

The following background information regarding the MLPA and MLMA is provided to better frame how the Marine Region allocated resources in FY 2006-07 and will be allocating its budgeted resources for FY 2007-08.

Marine Life Protection Act

Background

The MLPA mandates "that there is a need to reexamine and redesign California's marine protected area (MPA) system to increase its coherence and its effectiveness at protecting the state's marine life, habitat, and ecosystems" (Fish and Game Code §2853). The MLPA requires that Department prepare and the Commission adopt a Master Plan to guide the implementation of a Marine Life Protection Program. The Department, as a preliminary step, prepared a Master Plan Framework, including most parts of the Master Plan but not specific recommendations on the location, type, and number of MPAs. In August 2005, the Commission adopted the Master Plan Framework prepared by Department. The Master Plan Framework sets forth the tasks and processes required to fully implement the MLPA.

In April 2007, the Commission adopted regulations implementing the first component of a revised statewide network of MPAs along the central coast of California. The current study region for implementation is the north central coast, between Pigeon Point in San Mateo County and Alder Creek near Point Arena in Mendocino County. The next steps for implementing the MLPA are to:

(1) finalize the designation process in the north central coast region;

(2) monitor, enforce and manage the central coast MPA network and other existing MPAs; and

(3) continue the MLPA implementation process in the other regions of California.

Finalizing North Central Coast MLPA Process

Implementation of the MLPA within the north central coast study region is currently underway. A regional working group of diverse stakeholder representatives has been formed along with a scientific advisory team. The Secretary for Resources has appointed a Blue Ribbon Task Force to provide policy input and advice on recommendations for MPAs to the Fish and Game Commission. It is expected that the Task Force will provide the Fish and Game Commission with a set of alternative MPA proposals including a preferred alternative in March 2008. The Commission is expected to complete the regulatory review process and adopt a set of MPAs within the north central coast by January 2009.

Monitoring

The Department believes that it is critical to obtain information on ecological, habitat and other natural processes as part of MLPA implementation. This information is necessary to determine over time if the selected MPA networks are fulfilling the goals envisioned in the MLPA.

The most pressing need is for baseline monitoring of MPAs along California's central coast. This baseline monitoring will provide a snapshot of conditions prior to the establishment of the MPAs. As monitoring continues, changes within the MPAs may be compared to this baseline information. The baseline information provides the "before" picture that can be compared against all future "after" pictures. Using $2 Million in funding provided by the 2007- 08 budget, the Department has established several new baseline monitoring projects. These projects were selected through a request for proposal process overseen by California Sea Grant. In addition to these externally contracted processes, Department staff are contributing through participation in various surveys and data collection efforts.

After the baseline monitoring is completed, ongoing monitoring will also need to be conducted. Ongoing monitoring will not only help determine how well the selected MPA network is fulfilling the MLPA goals, it will inform the ongoing adaptive management process.

Enforcement

Department's enforcement staff is charged with enforcing marine resource management laws and regulations over an area encompassing approximately 1,100 miles of coastline. Department staff also provides enforcement of federal laws and regulations within state waters and in federal waters. Enforcement duties include all commercial and sport fishing statutes and regulations, all Fish and Game Code and Title 14, California Code of Regulations restrictions, marine water pollution incidents, homeland security, and general public safety. General fishing regulations and other restrictions apply within MPAs as well as specific MPA restrictions. The Department shares jurisdiction for federal regulations including the Magnuson-Stevens Fishery Conservation and Management Act, the Endangered Species Act, the Marine Mammal Protection Act, and the Lacey Act.

Specific information regarding the Department's enforcement efforts relative to the marine environment can be found in the Enforcement Program section of this Supplemental Report.

Future MPA Networks

The adopted MLPA Master Plan recommends dividing the state into five regions to facilitate implementation. The MLPA implementation planning process for each region of the state will require both Department staff and contracted support for various technical and scientific roles.

Planned Advancement through the FY 2007-08

A great deal of information and resources are needed to support the implementation of the MLPA on a statewide basis. The Marine Region Program has been reorganized and the additional resources received in FY 2007-08 are being allocated in a way that will help Department implement proposed new MPAs in the central California coast as well as continue MLPA implementation in subsequent regions over the next five years. Our efforts for FY2007-08:

- Baseline Monitoring
    - The MLPA specifically calls for monitoring and research within MPAs.
    - Baseline data are necessary to determine whether MPAs are effective and to help support ongoing adaptive management of MPAs.
    - In order to move forward with an ecosystem approach to management, it is important to understand the effects of MPAs on the biology and ecology of the biota within and adjacent to the MPA boundaries.
    - Reference reserves may over time help to reveal the effects of fishing on the ecosystem, by providing a comparison of un-fished to fished habitats.

- Habitat Mapping
    - Specific information on benthic zone (ocean bottom) habitats is necessary both to plan and design MPA networks and to monitor those networks once implemented. Benthic habitat mapping will provide the detailed data necessary to determine substrate types, depths, and complexity of habitats.
    - An important early step in moving forward with ecosystem management is to identify, classify, and catalog existing habitat. In the absence of this information, it is difficult or impossible to determine how the ecosystem functions as a whole and what the overall impacts of fishing are to the ecosystem.

- Fishery-Independent Surveys
    - Systematic surveys such as the SCUBA, Remotely Operated Vehicle (ROV), and fish trapping proposals provide adult and juvenile information on relative abundance, species interactions and associations, habitat preference, distribution, and size composition of numerous stocks. When tracked over time, this kind of information may provide managers with an indication of whether stocks are increasing or decreasing, and whether the management measures that have been employed are achieving their intended conservation objectives. These surveys help provide information on the status of populations and species composition in specific areas needed for MLPA implementation and planning.
    - Another type of proposed fishery-independent survey is for ichthyoplankton, which measures the spawning output from many different species at the same time. This provides information on growth and survival at the youngest life stages, and also provides an indication of the abundance of the female spawning biomass that produced the planktonic offspring. As with the case of adult and juvenile survey data,

the ichthyoplankton survey data may be used to help determine MPA effectiveness.

- Fishery-Dependent Data Collection
    - Better access to data from logbooks and data system evaluation will help to provide more accurate, precise, and timely data on fishing activities, which is crucial to effective fishery management. This information is critical to the MLPA implementation process to help determine both impacts to fisheries from MPAs and to determine locations where stocks may have been impacted by fishing and benefit from MPA protection.
    - The proposed allocation of resources to this effort will help eliminate bottlenecks in capturing, editing, and disseminating a large volume of fishery data from existing sources, especially logbooks.

- Support for MLPA Planning
    - Certain types of expertise not found within the Department are necessary to the MLPA implementation and planning process.
    - External, neutral facilitation is necessary for the stakeholder involvement process as described by the MLPA Draft Master Plan and adopted Master Plan Framework. Neutral facilitation enhances both the process and products from stakeholder working groups.
    - Other scientific expertise can be contracted to provide specific time-sensitive products that the Department may not be able to develop on its own.
    - New funds will support some of the preliminary data collection for the MLPA process in the next region, focusing on needed socioeconomic and ecological data.

- Research Vessel Operations
    - Fishery-independent surveys can only be accomplished with vessel operations that are dedicated to scientific research. Therefore, it is crucial that vessels be available to provide suitable platforms to accomplish these activities. We are proposing to fund additional research vessel operations to help insure that the needed maintenance is performed and equipment is procured to allow the survey work to take place. These surveys are a cornerstone of MPA monitoring.

- Programmatic Support and Infrastructure
    - Proposed support and infrastructure expenditures will provide the necessary physical equipment to address the MLPA implementation and planning needs along with the objective of monitoring and evaluating MPAs. In addition, we are proposing to purchase computers and other equipment to enhance the Department's capability to acquire necessary data, maintain databases, and provide input into both stakeholder and Commission processes.

Marine Life Management Act

Background

The Marine Life Management Act (MLMA), which became law on January 1, 1999, opened a new era in the management and conservation of California's marine living resources. In fashioning the MLMA, which was introduced as AB 1241 by Assemblyman Fred Keeley, the Legislature drew upon years of experience in California and elsewhere in the United States and the world.

The Act includes a number of innovative features:

- The MLMA applies not only to fish and shellfish taken by commercial and recreational fishermen, but to all marine wildlife.
- Rather than assuming that exploitation should continue until damage has become clear, the MLMA shifts the burden of proof toward demonstrating that fisheries and other activities are sustainable.
- Through the MLMA, the Legislature delegates greater management authority to the Fish and Game Commission and the Department of Fish and Game.
- Rather than focusing on single fisheries management, the MLMA requires an ecosystem perspective including the whole environment.
- The MLMA strongly emphasizes science-based management developed with the help of all those interested in California's marine resources.

A central tenet of the MLMA is that management decisions are to be based on sound science and other relevant information. In order to accomplish the MLMA guiding principle of employing an ecosystem approach to achieving sustainable fisheries, the MLMA identifies the acquisition of essential fishery information (EFI) as the way that the best available scientific information will be developed and brought into the process of making management decisions. EFI includes the biology of the fish, population status and trends, fishing effort, catch levels, impacts of fishing, ecological relationships, habitat information, and other environmental information. The MLMA calls on the Department to collect EFI for all fisheries that are managed by the state. Consequently, the MLMA promotes general research on marine ecosystems for use in management decisions.

The MLMA also mandates that the state initiate a comprehensive, ecosystem-based approach to fisheries management through the development of fishery management plans (FMPs). The ultimate goal, as mandated by the MLMA, is to create FMPs for all essential stocks. The Act further mandates that in the absence of strong supporting data, a precautionary approach should be used to manage our state marine fisheries. However, the adoption of new FMPs is not a prerequisite for implementing the general approach to science-based management that is required by the MLMA.

The MLMA directs Department to collect and analyze fishery data for use in implementing management strategies. To accomplish this broad and overarching mandate, very few of the actions included in this work plan are directed toward

completing any particular FMP. To avoid duplication of effort and achieve the maximum return on research activities, rarely are data collection projects species specific, especially when they are designed according to the ecosystem-based approach to management that is prescribed by the MLMA. Consequently, this work plan focuses on collecting much needed baseline data for a number of stocks and habitats, which will directly enable the state to move forward with developing the necessary EFI, improving the scientific basis for management decisions. Activities outlined in this work plan will also make significant progress towards fulfilling the research and data needs of existing and future FMPs.

Department progress to date toward implementing the MLMA

The fishery management system established by the MLMA is being implemented stepwise for four sets of fisheries. Following is a summary of actions taken by Department to implement the MLMA for each of these groups.

1. The Nearshore finfish fishery and the white seabass fishery were specified in the MLMA as the first to have FMPs developed and adopted for management.

    - The pre-existing white seabass FMP was amended to comply with the MLMA, and the Commission adopted the revised FMP in 2001. The WSFMP uses a framework plan approach for managing the white seabass fishery. This enables the adjustment of management measures, within the scope and criteria established by the FMP and implementing regulations, without the need for amending the FMP.
    - The Department prepared a Nearshore FMP which was adopted by the Commission in August, 2002. Since that time, the Commission and Pacific Fishery Management Council (PFMC) have used it to provide a framework for managing California's Nearshore fisheries.

2. Fisheries for which the Commission held some management authority before January 1, 1999.

    - The MLMA Master Plan, adopted in 2001, provides a framework for accomplishing this mandate, setting priorities for the next fisheries for which FMPs will be drafted.
    - A Market Squid FMP was adopted in 2004.
    - An Abalone Recovery and Management Plan (ARMP) was adopted in 2005.
    - The Marine Region is revising the MLMA Master Plan and a review of the priority species for FMPs will also be done.

3. Emerging and growing fisheries that are not currently subject to specific regulation.

    - The Marine Region recently reorganized to establish a new project that deals specifically with emerging fisheries managed by the state, such as Tanner crab.

4. Commercial fisheries for which there is no statutory delegation of authority to the Commission and the Department. (In the case of these fisheries, the Department may prepare, and the Commission may adopt, an FMP, but that plan cannot be implemented without a further delegation of authority through the legislative process.)

    - These fisheries have not been a priority for Department action.

Planned Advancement through FY 2007-08 and FY 2008-09 Budget Appropriations

A great deal of information and resources are needed to support the completion of EFI for science-based management, as well as to address the data gaps highlighted in the already-completed FMPs for nearshore, white seabass, squid, and abalone. The data collection we are proposing will help the Department make significant progress to directly address EFI needs. This will allow the Department to not have to wait for, or rely upon, other agency or academic scientists to provide the underlying research and analyses. Proposed project activities will enhance EFI in several key areas, which in turn will help to insure that California's fisheries are managed for long-term sustainability.

- Baseline Monitoring
    - In order to move forward with an ecosystem approach to management, it is important to understand the biological and ecological effects of MPAs on the biota within and adjacent to the MPA boundaries.
    - Reference reserves may, over time, help to reveal the effects of fishing on the ecosystem by providing a comparison of unfished-to-fished habitats.
    - Baseline data will also provide information on individual species—both exploited and unexploited—so that future activities may be more effectively evaluated, such as the possible development of a new fishery.
    - Baseline data may also help to provide the inputs for future stock assessments of currently un-assessed species.
    - Finally, the MLMA calls for socio-economic considerations in decision-making, and the baseline socio-economic data on MPAs will help address this issue.

- Habitat Mapping
    - An important early step in moving forward with ecosystem management is to identify, classify, and catalog existing habitat. In the absence of this information, it is difficult or impossible to determine how the ecosystem functions as a whole and what the overall impacts of fishing are to the ecosystem.

- Fishery-Independent Surveys
    - We will conduct systematic surveys such as the SCUBA, ROV, and fish trapping to provide adult and juvenile information on relative abundance, species interactions and associations, habitat preference, distribution, and size composition of numerous stocks. When tracked over time, this kind of information may provide managers with an indication of whether stocks are increasing or decreasing, and whether the management measures that have been employed are achieving their intended conservation objectives. These surveys are one source of information on the effects of fishing on habitat, which is an MLMA objective. Fishery-independent time series data for adults and juveniles are also important for standard stock assessment models for individual species.
    - Another type of fishery-independent survey we will begin implementing is for ichthyoplankton, which measures the spawning output from many different species at the same time. This provides information on growth and survival at the youngest life stages, and also provides an indication of the abundance of the female spawning biomass that produced the planktonic offspring. As with the case of adult and juvenile survey data, the ichthyoplankton survey data are often used as inputs for integrated stock assessment models.

- Fishery-Dependent Data Collection
    - Better access to data from logbooks and data system evaluation will help to provide more accurate, precise, and timely data on fishing activities, which is crucial to effective fishery management. This information allows managers to insure that key regulations, such as overall catch limits, are being observed and enforced. Also, the MLMA calls for monitoring the level of by-catch and it's effect on other fisheries, which can only be accomplished through effective fishery data collection and the availability of data from sources other than landings, such as from logbooks. Finally, important biological information on the size, age, and sex composition of the catch is provided through these proposed activities.
    - Our proposed project activities will help eliminate bottlenecks in capturing, editing, and disseminating a large volume of fishery data from existing sources, especially logbooks.
    - Improved field data collection will provide better geographic and temporal coverage of fishing activities, ultimately providing managers with insights into poorly-sampled secondary and tertiary activities such as night-time fishing and trips that originate from private marinas. These activities currently are significant sources of uncertainty and imprecision in the overall catch estimates.

- Stock Assessments
    - Integrated stock assessments for individual species provide valuable information to managers on the current abundance of a stock and the amount of fishing that the stock can safely support. This is an established and accepted way to provide for sustainable fisheries, and the proposed work will significantly add to the number of assessed stocks in California waters. These assessments are based on computer models that simultaneously analyze all available information on a population to provide the best single answer on how the stock abundance has changed through time in response to fishing pressure. This kind of information informs many fishery management decisions at both the state and federal levels.

- Research Vessel Operations
    - Fishery-independent surveys can only be accomplished with vessel operations that are dedicated to scientific research. Therefore, it is crucial that vessels be available to provide suitable platforms to accomplish these activities. We are proposing to fund additional research vessel operations to help insure that the needed maintenance is performed and equipment is procured to allow the survey work to take place.

- Programmatic Support and Infrastructure
    - Proposed support and infrastructure expenditures will provide the necessary physical equipment to address the MLMA objective of monitoring and evaluating management actions. The proposed purchase of computers and other equipment will enhance the Department's capability to acquire EFI, maintain databases, and conduct sophisticated modeling analyses such as stock assessments.

The following specific activities and expenditures will directly address some of the EFI research and data needs that have been identified in the existing nearshore, white seabass, and market squid FMPs, as well as the Abalone Recovery and Management Plan.

- Nearshore FMP research and data needs will be met by:
    - Nearshore habitat mapping using sonar, ROV video transects, and novel imaging technologies for spatially specific information on habitat
    - Developing geo-referenced databases
    - Conducting ROV, scuba, and experimental fishing studies to acquire spatially specific information on biomass, density, abundance, age structure, recruitment, life history, and ecological information
    - Improving port sampling protocols for more accurate sport and commercial catch information
    - Improving CPFV and commercial logbook systems for more useful information on catch composition and location
    - Conducting socio-economic studies to determine resource demand, costs-of-production, and the contribution of the commercial and recreational fisheries to local economies

- White seabass FMP research and data needs will be met by:
    - Determining accurate estimates of bycatch
    - Moving toward a ecosystem-based management approach
    - Expanding socioeconomic data collection and analyses

- Market squid FMP research and data needs will be met by:
    - Maintaining and improving the market squid logbook program for more timely data reporting
    - Maintaining the port sampling program and improving the estimates of by-catch
    - Using fishery-independent surveys to evaluate stock structure, distribution, and abundance which will provide the basis for future science-based management strategies
    - Utilizing a ROV to characterize market squid spawning habitat, including the depth and temperature where egg cases are deposited as well as to develop an index of egg case abundance
- Abalone Recovery and Management Plan research and data needs will be met by:
    - Collecting management-related EFI through diver surveys
    - Collecting recovery-related data through exploratory and recovery assessment surveys

In 2006, the Marine Region was reorganized into five major programs (Organizational Structure attached):

1. Fisheries Management-State/Federal Managed Species

2. Fisheries Management-State Managed Species

3. Habitat Conservation

4. Resource Assessment

5. Administration and License Sales

This was done to allow the Region to be more effective, inclusive, comprehensive and collaborative in our marine management activities. In addition, our organizational structure makes it much easier for the Legislature, our constituents and the general public to understand what we do, how we are funded, where our resources are allocated, and what we are able to accomplish each fiscal year. We have attached an organizational chart that displays how we are allocating our current resources as well as the significant new resources we received this fiscal year.

Our five major programs are described below in more detail on a project-by-project basis along with a discussion of the budgeted resources being dedicated as well as each project's key accomplishments for FY 2006-07 and key (measurable) objectives for FY 2007-08.

Program: *Fisheries Management – State/Federal Managed Species*

This program supports management activities affecting California and California fishermen under state and federal jurisdiction through the PFMC. Staff collects, analyzes and reports stock assessment and other fishery-related data necessary to manage California's
fisheries resources on a sustainable basis, taking into account associated resources and the habitats upon which they depend. The mixed international and national jurisdiction of these fisheries dictates the Department work closely with other Pacific states and federal agencies to ensure effective management. Staff also assists in regulation development for use in the Commission regulatory process.

Project: Groundfish Management

The Department provides annual and in-season management options and recommendations to the Commission and the PFMC for commercial and recreational fisheries based on analysis and review of fishery dependent data. Some project staff conducts stock assessment modeling and participates in assessment reviews. Project biologists serve as California members on the PFMC Groundfish Management Team (GMT) and the Scientific and Statistical Committee to represent the state's unique fisheries. "Groundfish" refers to the 90 species listed in the Federal Groundfish Fishery Management Plan (FGFMP) and primarily includes species in the following groups: rockfishes, sharks, skates, and flatfishes. Implementation of the state Nearshore Fishery Management Plan (NFMP) is also coordinated through this project. Sixteen of the nineteen NFMP species are also in the FGFMP.

Key Accomplishments for FY 2006-07: In order to coordinate management of these species the Department must maintain and enhance strong working relationships with researchers and other agencies working on groundfish including National Oceanic and Atmospheric Administration (NOAA) Fisheries, the Pacific states, and the PFMC. Key outcomes or products accomplished this fiscal year include:

- Conducted stock assessment for blue rockfish with a pre-assessment data workshop.
- Assembled constituent input from five public meetings, and analyzed recent fishery participation and port-based activity for determining a state perspective for refining federal Trawl Individual Quota (TIQ) alternatives.
- Analyzed data and prepared report to support development of a federal open access permitting process and associated Federal Environmental Assessment (EA) report.
- Began development of a project plan, research needs, and timeline for moving nearshore species from "data poor" to "data moderate".
- Hired and trained three new Associate Biologists and two Biologists to focus on California's recreational and commercial groundfish fishery; one Associate Biologist assumed the Department's GMT recreational fishery position at the

PFMC and took over recreational in-season monitoring, another Associate Biologist assumed the Department's GMT commercial fishery position and will focus on developing the Department's position on Trawl Individual Quota's (TIQ), and other PFMC issues, and the third Associate Biologist will coordinate chilipepper rockfish research under Exempted Fishing Permits (EFPs) and assist with stock assessments. One Biologist will develop proficiency with analysis of the California Recreational Fisheries Survey program and the other will develop proficiency with the commercial fishery data and provide support for the open access EA report.

- Developed a formal support process for PFMC support staff including communications, designing briefing materials, preparing a "key information binder", and establishing evaluation processes for key issues.
- Prepared 12 briefing reports for PFMC to support staff for 2007 PFMC meetings.
- Attended a total of eight Groundfish Management Team and PFMC meetings to discuss and analyze fisheries data, and provide management recommendations to support development and implementation of the FGFMP.
- Prepared Fishery Status Reports for California scorpionfish, gopher rockfish and the Nearshore Live-Fish Fishery.
- Redesigned the groundfish website's content and layout to make it more user-friendly.

Key Measurable (Planned) Objectives for FY 2007-08:

- Participate in a full peer review of blue rockfish stock assessment.
- Prepare key background materials for components of Open Access Permitting program specifically addressing recommendations for integrating the state's Nearshore Fishery Permit programs.
- Develop proposed changes to recreational and nearshore commercial fishing regulations for 2009-10 for federal National Environmental Protection Agency and Commission processes.
- Begin a Fish Bulletin on Nearshore Stock Assessments.
- Initiate a report on chilipepper rockfish Exempted Fishing Permit (EFP) research for the PFMC.
- Complete a California Groundfish Fishery Characterization Report.
- Develop a paper on the results of the groundfish tagging study.
- Refine PFMC support processes including communications, briefing materials, and evaluation processes. Prepare briefing materials and PFMC documents as needed for open access permitting, inseason monitoring, 2009-2010 regulation development, stock assessment results, TIQs, Pacific whiting fishery, EFPs, or other topics.
- Prepare 26 briefing reports for five PFMC meetings for PFMC support staff.
- Attend a total of eight Groundfish Management Team and PFMC meetings to discuss and analyze fisheries data, and provide management recommendations to support development and implementation of the FGFMP.
- Develop appropriate long-term management strategy for California sheephead based on recent research results and previous stock assessment results.

- Continue development of project plan, research needs, and timeline for moving nearshore species from “data poor” to “data moderate”. Conduct a related symposium and a proposed plan prepared by contractor for the Department to implement.
- Develop data and modeling needs for multi-species groundfish stock assessment approach.
- Prepare monthly inseason reports for recreational and commercial fisheries for use by the Director or PFMC support staff.
- Prepare public outreach materials related to groundfish fishery including press releases, frequently asked questions, and fish identification.
- Hire and train one new Senior Biologist Specialist to focus on California’s recreational and commercial groundfish fishery and improving management methods for data-limited species under the NFMP.
- Address key data gaps for NFMP species through Department and contracted research, and associated reports prepared.
- Continue development and refinement of the “Tool Box” set of documents used by staff at the PFMC meetings.
- Create permanent stations for posting groundfish identification flyers for key species at the primary landing sites along the coast.

Program: *Fisheries Management – State/Federal Managed Species*

Project: Coastal Pelagic Species / Highly Migratory Species Management

This project collects, analyzes and reports stock assessment data necessary to manage California’s Coastal Pelagic Species (CPS) and Highly Migratory Species (HMS). Some project staff participates on the PFMC’s CPS and HMS multi-agency management teams.

The primary CPS species include two federally managed species, Pacific sardine and Pacific mackerel; and one State managed species, market squid. In order to coordinate management of these species the Department must maintain and enhance strong working relationships with researchers and other agencies working on CPS including National Oceanic and Atmospheric Administration Fisheries and PFMC. Under State management, this program implements the Market Squid Fishery Management Plan which collects fisheries dependent data to assess fishery impacts to the market squid resource and participates in research (including industry sponsored efforts) to increase our understanding of squid biology.

The primary HMS species include the tunas, swordfish and sharks. The project provides information, data analyses, and recommendations necessary to manage California’s HMS fisheries. The project also provides technical assistance to the PFMC, the National Marine Fisheries Service (NMFS), other federal and state agencies, tribal governments, and constituents on Pacific Coast HMS stocks.

Key Accomplishments for FY 2006-07: For both CPS and HMS, the primary objective in FY 2006-07 was to hire and train new staff for the project. Although only two new positions were created (Associate Biologist and a Biologist), attrition of key personnel to other projects resulted in the refilling of seven positions. Other key outcomes or products accomplished this fiscal year for CPS include:

- Completed Phase I and Phase II of the analysis of market squid fishery logbook data from 1999 to 2006. This includes an evaluation of vessel characteristics and light boat techniques and a complete revision of the market squid logbook database.
- Drafted a white paper on life history changes in the California market squid population: correlations with fishery and environmental factors from 1948 to 2006 (still in final in preparation). Presented the results at both the 2006 Western Society of Naturalists and CalCOFI conferences.
- Completed a market squid reference library which is available to staff on an internal web site.
- Described the status of the CPS fisheries in a presentation at the 2006 CalCOFI Conference.
- Assisted in preparation of sardine and mackerel stock assessments and Stock Assessment and Fishery Evaluation Reports to the PFMC.
- Prepared a work plan for fisheries independent squid research that identifies both short term and long term research priorities to be conducted by the Department as well as collaboratively with the squid industry.

The primary objective of HMS workload for FY 2006-07 was directly related to compliance of state and federal fisheries legislation and implementation of the federal HMS Fishery Management Plan. Key outcomes or products accomplished this fiscal year for HMS include:

- Assisted in the preparation of the Stock Assessment and Fishery Evaluation Report for HMS including a description for California's commercial and recreation fisheries.
- Contributed to the review and development of alternatives for several exempted fishing permits.
- Prepared a review of the recreational daily bag limits for albacore and bluefin tunas which lead to the implementation of both State and Federal regulations.
- Contributed to the development of alternatives for entire scope of routine measures including official commercial passenger fishing vessel (CPFV) identification and boundary change to sea turtle conservation area off the state of Oregon.
- Initiated a process to compile all current documentation on the HMS fisheries in California including logbook information, changes in legislation and regulations, and assessment methods.
- Described the status of the HMS fisheries in a presentation at the 2006 CalCOFI Conference.

Key Measurable (Planned) Objectives for FY 2007-08:

- Assist in preparation of sardine and mackerel stock assessments and Stock Assessment and Fishery Evaluation Reports to the PFMC.
- Implement fisheries independent squid research priorities to be conducted by the Department as well as collaboratively with the squid industry and university researchers. This may include a large-scale ichthyoplankton survey designed to collect and analyze squid para-larvae distribution and abundance and evaluate whether it can be used as a management tool to monitor squid resource abundance, disturbance of market squid egg beds by purse seine nets, and stock identification through micro-chemical analysis of squid statoliths.
- Write a white paper describing the CPS fishery since the resurgence of sardines.
- Assist in the preparation of the Stock Assessment and Fishery Evaluation Report for HMS including a description for California's commercial and recreation fisheries.
- Develop recommendations for international actions to end overfishing of yellowfin tuna and options for a joint management framework for the high seas shallow-set longline fishery.
- Complete the compilation of all current documentation on the HMS fisheries in California including logbook information, changes in legislation and regulations, and assessment methods.
- Newly hired Biologists will have completed initial training requirements in order to fulfill their job duties as well as participate in fisheries independent squid research.

Program: ***Fisheries Management – State/Federal Managed Species***

Project: **Salmon Management**.

The Salmon Management Project provides fishery-dependent and fishery-independent data used in management of California's ocean salmon fisheries. The project fulfills the Department's obligations on the PFMC's Salmon Technical Team, and produces estimates of ocean harvest, escapement, ocean abundance, and regulatory impacts. The project also provides technical assistance to the PFMC, the Commission, the National Marine Fisheries Service (NMFS), other federal and state agencies, tribal governments, and constituents on Pacific Coast salmon stocks.

Key Accomplishments for FY 2006-07: The project's primary focus is to provide the data and analyses needed for management of California's ocean salmon fisheries. The two new positions added in FY 2006-07 increased the projects ability to meet management needs. One position focused on fishery-dependent data collection in the field, and the other on data analysis. Key outcomes or products accomplished this fiscal year include:

- Collected catch, effort, and biological data needed for management from 20 percent of the salmon landed in California's ocean salmon fisheries.

- Collected the coded-wire tags from 20 percent of commercial and recreational landings, read the tags, and maintain the databases for tag information needed for the Regional Mark Information System (a cooperative program of the west coast states that is managed by the Pacific States Marine Fisheries Commission).
- Estimated commercial and recreational ocean salmon landings, catch composition, fishing effort, and contribution rates of coded-wire tagged salmon for the 2006 ocean salmon fisheries in California, and submit to the PFMC.
- Developed and modified fishery models for marine and freshwater salmon harvest management. Results were submitted to PFMC at March meeting for developing 2007 management options.
- Assisted in the development of a fishery management plan amendment to allow a low level of fishing on Klamath Fall Chinook when at low abundance and that does not cause long term harm to the stock.
- Increased expertise of project staff on various fisheries models through in-house training and mentoring. Cross-trained staff on data analysis programs and computer programs used to produce estimates.

Key Measurable (Planned) Objectives for FY 2007-08: In addition to the activities and work products in support of the project's primary focus, project staff will participate in a pilot project to test the use of genetic stock identification (GSI) for in-season management and project staff will assist with the development of a rebuilding plan.

- Collect catch, effort, and biological data needed for management from 20 percent of the salmon landed in California's ocean salmon fisheries.
- Collect the coded-wire tags from 20 percent of commercial and recreational landings, read the tags, and maintain the databases for tag information needed for the Regional Mark Information System (a cooperative program of the west coast states that is managed by the Pacific States Marine Fisheries Commission) by December 31, 2007.
- Estimate commercial and recreational ocean salmon landings, catch composition, fishing effort, and contribution rates of coded-wire tagged salmon for the 2007 ocean salmon fisheries in California, and submit to the PFMC by January 15, 2008.
- Develop and modify fishery models for marine and freshwater salmon harvest management. Submit results to PFMC at March meeting for developing 2008 management options.
- Assist in the development and implementation of genetic stock identification techniques for the use in ocean salmon fishery management. Collect genetic tissues and scales from commercial fisheries in Fort Bragg during April and August.
- Assist in research conducted by California Salmon Council (troll industry) using federal salmon disaster relief monies to collect GSI tissues in areas closed to commercial fishing. PFMC and NMFS must approve experimental fishery at November PFMC meeting.
- Work with the PFMC's Salmon Technical Team to develop a rebuilding plan for Klamath Fall Chinook.

- Work with the Klamath River Technical Advisory Team to upload CWT recovery and associated catch-sample data collected in the Klamath Basin during 2002-2006 to the RMIS system.

Program: *Fisheries Management: State Managed Species*

The State Managed Species program focuses on the ongoing data analysis, data collection, report preparation, and management recommendation processes for marine finfish and invertebrate species managed solely by the State of California. This program's scope includes commercial fishing, recreational fishing, and marine hatchery/aquaculture operations. Projects within the program focus on various species groups and/or habitats primarily found within State waters. This includes bay and estuarine habitats, invertebrate species, and finfish species. The program also includes a function to review and analyze existing fisheries for potential management changes.

Project: Aquaculture and Bay Management

The Aquaculture and Bay Management Project includes staff directed towards the management of important commercial and recreational fisheries occurring primarily within bays and estuaries and who provide input and oversight of marine aquaculture and the white seabass hatchery programs.

Key Accomplishments for FY 2006-07: In FY 2006-07 the Aquaculture and Bay Management project focused on management of the Pacific herring commercial fishery, white seabass hatchery and enhancement program, oversight of marine aquaculture through disease monitoring and permit review, and assessing management needs for other bay and estuarine species.

- Conducted biomass assessments for the San Francisco Bay commercial herring fishery.
- Developed Pacific Herring quota options for the Commission's consideration.
- Developed regulatory proposals to streamline the regulatory process for the Pacific herring regulations.
- Prepared Initial Statement of Reasons for Regulatory Action to Amend Sections 163 and 164 to Title 14.
- Prepared Administrative Draft Mitigated Negative Declaration (MND) for the White Seabass project.
- Provided oversight of Administrative Draft of White Seabass Enhancement Plan.
- Drafted Supplemental Environmental Document (DSED) for the state herring fisheries, circulated for public comment, and ratified by the Commission.
- Completed Notice of Preparation and scoping for Programmatic Environmental Impact Report (PEIR) for marine aquaculture.
- Integrated paperless Aquaculture registration into the Department FISH system.
- Continued Sabellid polychaete eradication with another facility certified as Sabellid-free.

- Trained new biologists in CEQA guidelines training; b) boat handling; c) drafting regulations for the Commission; and d) technical writing.

Key Measurable (Planned) Objectives for FY 2007-08: In FY 2007-08 the project will shift its focus to management of priority species and tasks identified in the past fiscal year.

- Conduct biomass assessments for San Francisco Bay commercial herring fishery will be completed.
- Develop Pacific herring quota options for the Commission or Director's consideration.
- Facilitate public review MND for Ocean Resources Enhancement and Hatchery Program.
- Submit the White Seabass Enhancement Plan for Commission approval.
- Develop Administrative Draft PEIR for Marine Aquaculture and circulate for public review.
- Coordinate with public aquaria and develop protocols for importing and holding exotic marine species.
- Identify baseline information needs for each bay statewide, and begin the process for determining how to collect the data. Emphasis will be on bays closest to Marine Protected Areas initially.
- Work with multi-agency task force to develop research proposals for the Humboldt Bay Ecosystem Based Management Program.
- Identify and map key marine habitats in Humboldt Bay and Eel River Estuaries.
- Assist USFWS with data collection in Humboldt Bay for international SeagrassNet (seagrass monitoring) Project.
- Identify additional management activities in 2006-07 that had not been completed.
- Provide additional training in writing, data collection techniques and analysis, and communication and presentation skills to benefit the new hires as well as the rest of the Aquaculture and Bay Management staff.

Program: *Fisheries Management: State Managed Species*

Project: Invertebrate Management

The Invertebrate Management project includes staff directed towards the management of important commercial and recreational marine invertebrate fisheries occurring primarily in the nearshore environment. The project is also responsible for implementation of the Abalone Recovery and Management Plan (ARMP).

Key Accomplishments for FY 2006-07: In FY 2006-07, the Invertebrate Management project focused on management of the spiny lobster commercial and recreational fisheries, north coast recreational abalone fishery, and commercial sea urchin fishery. The project also helped to develop potential options for the reopening of an abalone fishery at San Miguel Island. Additionally, the project reviewed and prioritized other invertebrate fisheries for management changes.

- Re-prioritized invertebrate species in need of management plans within the Master Plan for Fisheries Management Plans (FMPs)
- New staff focused on planning for a recreational lobster fishery survey to determine level of recreational catch by gear type and mode.
- Managed the north coast recreational abalone fishery
- Monitored abalone punch card data and completed fisher intercept survey
- Managed commercial and recreational dungeness crab fisheries
- Coordinated domoic acid testing in pre-season dungeness crab and collected spiny lobster for testing
- Managed commercial sea urchin fishery including participation in San Diego area stock assessment workshops
- Collected urchin samples from offloading urchin boats (sampling effort reduced due to priority shift and redirection of personnel)
- Monitored sea cucumber fishery logbook data and redesigned logbook
- Planned for potential San Miguel Island Abalone fishery
- Participated in and coordinated Abalone Fishery Advisory Groups
- Hired new staff and provided training.

Key Measurable (Planned) Objectives for FY 2007-08: In FY 2007-08 the project will shift its focus to management of priority species identified in the past fiscal year, implement any decisions made regarding the potential San Miguel Island abalone fishery, and move forward with recommended management changes in the spiny lobster fisheries.

- Continue to collect EFI (essential fisheries information) and begin preparing data and analyses necessary to prepare any new FMPs on the priority list developed in 2006-07
- Implement new recreational lobster fishery intercept survey
- Complete comparative study of catch efficiency of sport lobster hoop nets
- Reorganize lobster logbook databases for consistency and transfer data entry to MFSU
- Conduct regulatory process for needed lobster fishery changes such as sport lobster fishery report card
- Continue planning of potential San Miguel Island Abalone fishery
- Continue to participate and coordinate Abalone Fishery Advisory Groups
- Continue management of sea urchin and sea cucumber fisheries
- Continue management of north coast recreational abalone fishery
- Begin creel intercept surveys of Humboldt County sport clam fisheries

- Participate in setting Dungeness crab season according to Fish and Game Code.
- Participate in statewide creel surveys and baseline data dives.
- Complete training of staff.

Program: *Fisheries Management: State Managed Species*

Project: State Finfish Management

The State Finfish Management project (SFM) includes staff directed towards the management of important commercial and recreational marine finfish managed solely by the State of California. These species occur primarily in the nearshore environment but may range throughout state waters.

Key Accomplishments for FY 2006-07: In FY 2006-07 the SFM project focused on reviewing priority species with existing fisheries.

- Re-prioritized finfish species listed in the Master Plan for Fisheries Management Plans (FMPs) prepared pursuant to Marine Life Management Act (MLMA)
- Reviewed fishing level and population status of priority species
- Initiated a pilot program to conduct robust sampling of recreational beach fisheries in selected coastal counties and compare total catch and effort estimates to those of the California Recreational Fisheries Survey program
- Began collecting biological data on California halibut and other data necessary for the preparation of stock assessments and/or FMPs for the highest priority finfish species.
- Hired new staff and began training in extracting and analyzing fisheries data from the commercial landings database.
- Completed annual White Seabass report.

Key Measurable (Planned) Objectives for FY 2007-08: In FY 2007-08 the project will continue its focus on the management of priority species identified in the past fiscal year. Staff will continue to collect background information necessary to assist in a California halibut stock assessment and collect data on other species which can be used in the preparation of FMPs for high priority fisheries.

- Manage existing finfish fisheries and determine if management changes are necessary
- Continue a pilot program to conduct robust sampling of recreational beach fisheries in selected coastal counties and compare total catch and effort estimates to those of the California Recreational Fisheries Survey program
- Assess multi-year results of the California Recreational Fishery Survey to determine if recent management activities have adequately addressed species concerns

- Continue to collect and analyze data necessary for the preparation of stock assessments and/or FMPs for the highest priority finfish species, including fishery-independent trawl surveys for California halibut
- Train staff in the preparation of FMPs and technical writing skills

Program: *Fisheries Management: State Managed Species*

Project: State Fisheries Evaluation

The State Fisheries Evaluation (SFE) project includes staff directed towards evaluating existing fisheries managed solely by the State of California. The project will focus primarily on the California halibut and pink shrimp bottom trawl fisheries operating is state waters along with prioritizing other state managed fisheries for future review.

Key Accomplishments for FY 2006-07: In FY 2006-07 the SFE project focused on implementation of the halibut bottom trawl permit program and assessment of impacts of trawling that presently occurs within State waters.

- Produced Annual Status of the Fisheries Report for California halibut, pink shrimp, and ridgeback prawn.
- Analyzed fishery-dependent and fishery-independent data associated with state recreational and commercial fisheries
- Evaluated pink shrimp logbook program
- Began evaluation of California halibut and pink shrimp bottom trawl fisheries
- Supported implementation of California halibut bottom trawl permit program
- Hired and trained new staff in Department operations, developed knowledge of the Department's fisheries information system and historical databases

Key Measurable (Planned) Objectives for FY 2007-08: In FY 2007-08 the project will continue implementation of the bottom trawl permit program and increase its focus on evaluation of other existing state managed fisheries.

- Produce assessment report on the pink shrimp trawl fishery for Commission
- Produce assessment report on the California halibut trawl fishery for Commission
- Conduct a collaborative California halibut trawl bycatch study
- Support preparation of regulatory documents and support the regulatory process for management changes proposed for the trawl fisheries as needed
- Using priorities provided by the State Finfish Management project, begin evaluation of the first priority species
- Produce Status of the Fisheries Reports for the 2007 California Cooperative Oceanic Fisheries Investigation report on California halibut and leopard shark fisheries, including oral presentations.
- Continue training of new staff.

Program: *Marine Habitat Conservation*

The Marine Habitat Conservation program focuses on the planning, review, and implementation of activities that may impact marine habitats and projects directed at ecosystem based management activities. The program specifically focuses on the implementation of the Marine Life Protection Act (MLPA, Stats. 1999, Ch. 1015), ongoing management of existing marine protected areas (MPA), and the review of environmental impact reports and proposals for projects that may impact the marine and estuarine environment.

Project: Marine Project Review and Water Quality

The Marine Project Review and Water Quality project includes staff directed towards evaluating, reviewing and commenting on proposals from within and outside the Department. The project has primary responsibility for review of proposals that will potentially impact marine and estuarine habitats and or water quality. Staff are involved with the review of and participation in a myriad of projects that have water quality and habitat protection as integral components. Water quality issues impact all marine resources including marine protected areas, areas of special biological significance, coastal and pelagic fisheries, intertidal fish and wildlife organisms, marine birds and mammals, bays and estuaries fish and wildlife resources and all their associated habitats. Review includes, but is not limited to: once through cooling at coastal power plants, proposals for new pipelines and other structures on the sea floor, decommissioning of oil and gas production platforms, wave energy proposals, desalination projects, dredging projects, LNG facilities, restoration and mitigation proposals,. The project staff are constantly addressing these projects via pre-project reviews and meetings, CEQA and CESA review and compliance, as well as participation on a plethora of technical advisory committees, councils or commissions.

Key Accomplishments for FY 2006-07:

- Attended pre-project consultation meetings.
- Reviewed environmental documents and prepared comment letters for management signature to lead agencies.
- Participated in regional large scale long-term marine habitat and water quality planning activities.
- Prepared California Environmental Standards Act (CESA) permit documentation for individual projects in consultation with Habitat Conservation Planning Branch (HCPB).
- Coordinated with OSPR to review and comment on Ecological Risk Assessments of contaminated sites in or near marine waters, and prepare recommendations for cleanup, restoration, or mitigation for impacts to marine resources.
- Responded to public calls, electronic mailings, and written correspondence for information requests.
- Reviewed and commented on scientific research projects/data resulting in Policy changes/amendments.

- Provided ‘biological monitor’ training for dredging companies related to the protection of herring population.

Key Measurable (Planned) Objectives for FY 2007-08:

- Actively participate in study and review of potential wave-energy, liquefied natural gas, and similar alternative energy projects affecting marine environments.
- Attend pre-project consultation meetings.
- Review environmental documents and, if relevant, prepare comment letters for management signature to lead agencies (number of documents reviewed has averaged 450 per year).
- Participate in regional large scale long-term marine habitat and water quality planning activities.
- Prepare California Environmental Standards Act (CESA) permit documentation for individual projects in consultation with Habitat Conservation Planning Branch (HCPB), (average 4 per year).
- Conduct field investigations of spills and pollution events that threaten marine resources.
- Coordinate with OSPR to review and comment on Ecological Risk Assessments of contaminated sites in or near marine waters, and prepare recommendations for cleanup, restoration, or mitigation for impacts to marine resources.
- Review and participate in Marine Region and internal Department issues such as: write and review internal Department CEQA and functional equivalent documents, Department management plans, grant proposals, and legislative bill and bill amendment analyses.
- Respond to public calls, electronic mailings, and written correspondence for information requests.
- Review and comment on scientific research projects/data resulting in Policy changes/amendments.
- Provide ‘biological monitor’ training for dredging companies related to the protection of herring population (2 -3 times per year).

Program: *Marine Habitat Conservation*

Project: Marine Protected Areas

The Marine Protected Areas project includes staff directed towards evaluating, reviewing and developing recommendations for MPAs within State waters. The project has the primary responsibility for planning phases of the MLPA implementation in various study regions. Additionally, the project will assist with implementation of new MPAs in completed study regions and the ongoing review of monitoring data to determine MPA effectiveness and to make recommendations on potential management changes.

Key Accomplishments for FY 2006-07: Fiscal year 2006-07 adoption of the first set of regulations implementing the MLPA in a portion of the State. Staff focused their efforts on completing the central coast regional process, conducting the formal regulatory process, and preparing for implementation of new MPAs. Accomplishments included:

- Supported the regulatory and environmental review processes for the central coast study region.
- Completed monitoring and management plans for the central coast study region and included these plans in a proposed revision to the draft Master Plan for MPAs.
- Prepared geographical information system (GIS) data layers to provide information necessary to the north central study region planning process. This included assisting with the analyses of new bathymetric data collected for the region.
- Participated in and assisted with convening a stakeholder working group and science advisory team for the second study region.
- Prepared information for, planed, and conducted stakeholder and science team meetings to provide input on potential improvements to existing MPAs in the second study region.
- Coordinated with external staff and contractors to effectively use outside funding and support. In particular staff actively participated in the MLPA Initiative planning process working directly with contractors and staff of the Blue Ribbon Task Force.
- Hired new staff and provided training.

Key Measurable (Planned) Objectives for FY 2007-08: In FY 2007-08, the MPAs project will continue to focus its efforts on conducting the stakeholder process to plan for MPAs in the second study region. Staff will assist with implementation of new MPAs adopted for the first study region in the central California coast.

- Support the implementation of MPAs in the central coast study region.
- Prepare outreach materials and conduct outreach for implementation of MPAs in the central coast study region.
- Review proposals for and support baseline data collection for monitoring and evaluation of newly implemented MPAs in the central coast study region.
- Continue to develop and expand upon the monitoring and evaluation program.
- Prepare geographical information system (GIS) data layers to provide information necessary to the second study region planning process and to support stakeholders with alternative MPA proposal development.
- Participate in and assist with stakeholder working groups and the science advisory team for the second study region.
- Prepare information for, plan, and conduct stakeholder and science team meetings to provide input on potential improvements to existing MPAs in the second study region.

- Coordinate with external staff and contractors to effectively use outside funding and support.
- Participate in and present process products at national and international conferences.
- Participate in training in analyses of commercial and recreational fishing data, public involvement and conflict resolution, and technical and scientific writing.

Program: *Marine Resource Assessment*

The Marine Resource Assessment Program (MRAP) gathers and disseminates fundamental information on key marine species and associated habitats, and the fisheries dependent on them. Information developed by the MRAP is provided to Department managers, Marine Region fishery management units, and other state and federal agencies to support fishery management decision making. The MRAP further supports fishery management efforts by:

- Developing, maintaining, and sharing marine resource data bases;
- Providing biostatistical and socio-economic valuation services;
- Maintaining and providing research vessels;
- Developing and testing fishery resource assessment tools and methods;
- Coordinating dive safety training and certification services to the Department as a whole; and
- Processing marine-related scientific collecting permits.

The MRAP is made up of seven projects and the primary focus in 2006-07 was in hiring and training of new staff.

Project: Recreational Fishing Data

Provides support to the Recreational Fisheries Information Network (RecFIN) through participation on tri-state committees to determine best methods of gathering, analyzing, and presenting recreational fishery data; supports California Recreational Fisheries Survey (CRFS) through coordinating field data collection, and statistical review and analyses of methodologies; maintains quality Commercial Passenger Fishing Vessel (CPFV) database and provides data for Department and constituent use; and provides reports as required to support Department and Commission regulatory activities related to recreational fishing.

Key Accomplishments for FY 2006-07: The following planned tasks were completed in FY 2006-2007.

- Recreational Fisheries Information Network (RecFIN) Program Support and Collaboration:
    - Coordinated the Department's work on RecFIN programs.

- Represented California on the RecFIN Technical Committee set standards for the recreational data on the RecFIN web site to ensure the best science is used and to ensure that the California, Oregon, and Washington data are comparable.
- Represented California on the RecFIN Statistical Subcommittee to analyze and determine best methodologies for catch and effort estimates for the recreational fisheries of California, Oregon, and Washington to assist the Technical Committee.
- Represented California on the RecFIN Data Subcommittee to assist the Technical Committee with data input, retention and output standards for marine recreational survey sample and estimate data.
- Participated in the workshop sponsored by RecFIN and the Pacific Fishery Management Council (PFMC) to review the marine recreational sampling programs in Washington, Oregon, and California.

- California Recreational Fisheries Survey (CRFS) Support:

  - Provided support and oversight to field sampling efforts. Field samplers conducted more than 100,000 angler interviews and examined over 200,000 fish. Approximately 26,000 licensed anglers were interviewed for effort estimation.
  - Submitted all data to RecFIN for use by the public, scientists, and fishery managers from other states and the federal government.
  - Reviewed the CRFS sample design, survey methods, statistical methods, estimation procedures, computer programs, and data and documentation needs to ensure that CRFS data and estimates address management needs and conform to the best available science. The review resulted in changes in the estimation procedures that increased the accuracy and precision of the estimates.
  - Documented the sample design and the sample selection and sampling processes.
  - Provided statistical analysis of dual frame collection methods to compare methodologies and determine statistical validity.
  - Nearly doubled the number of anglers volunteering to participate in the telephone effort survey by outreach efforts including newsletters, flyers and telephone calls to fishing license agents.
  - Conducted three pilot studies to test methods for validating effort estimates for boats returning to private marinas, docks, and moorings.

- Commercial Passenger Fishing Vessel (CPFV) Logbook Database

  - Edited approximately 20,000 historical and 31,000 current CPFV daily trip log data entries for accuracy.
  - Provided other Department programs with CPFV log data for state and federal regulation development, publications, and constituents with data for research.

- Environmental Documents - Triennial Ocean Sport Fishing Regulations

    - Updated supplemental program and species fishery data for the Commission sport fishing regulation change cycle (2007-2009 management).

- Scientific Reports
    - Provided fishery-based report and presentation on Highly Migratory Species at California Cooperative Fisheries Investigation (CalCOFI) November 2007 conference.

Key Measurable (Planned) Objectives for FY 2007-08: The following are the planned objectives for 2007-08.

- Recreational Fisheries Information Network (RecFIN) Program Support and Collaboration
    - Coordinate the Department's work on RecFIN programs.
    - Represent California on the RecFIN Technical Committee.
    - Represent California on the Statistical Subcommittee to analyze and determine best methodologies to collect recreational fishery data in California, Oregon, and Washington.
    - Represent California on the Data Subcommittee to draft a simplified query system, outline a data-user manual, and add any available documentation to the web site.
    - Represent the West Coast on NMFS MRII Analysis Workgroup to review and recommend standards for recreational catch estimation procedures and sample design; to review assumptions affecting catch and effort estimates; and assess non-response and measurement error.

- California Recreational Fisheries Survey (CRFS) Support
    - Coordinate the implementation of the changes and improvements identified during the review of CRFS in FY 2006-07; coordinate validation studies to determine accuracy and bias of methods including coordination of pilot studies to test alternative methods. Results to be available December 31, 2007.
    - Provide field sampling support.
    - Provide field sampling opportunities for statistical staff to achieve understanding of how field sampling is conducted and how it relates to data collected.
    - Initiate outreach by mail and by field contact with license agents to increase amount of angler contact information available for use in fishing effort telephone survey.
    - Provide support to pilot studies to validate the effort estimates of private-access fishing from the telephone survey of licensed anglers, and potentially develop a more efficient and unbiased method for collecting effort data for private and rental fishing boats.

- Commercial Passenger Fishing Vessel (CPFV) Logbook Database
    - Edit historical and current CPFV data for accuracy.
    - Provide Department of Fish and Game programs with CPFV data for state and federal regulation development, publications, and fishery management plan development and provide constituents with data for research.
    - Initiate field contact with CPFV owners and operators to increase compliance and accuracy of logs required to be sent to Department.

- Groundfish Hooking and Mortality Study
    - Conduct field work to determine mortality of recreationally-caught groundfish species when hooked and discarded.

- Scientific Reports
    - Scan approximately 200 Marine Region Technical Reports, Administrative Reports, and other historical documents for posting on the Department website.

Program: *Marine Resource Assessment*

Project: Marine Fisheries Statistical Unit

The primary goal of the Marine Fisheries Statistical Unit (Unit) is to collect, audit, and process commercial fishery statistics legally required and provided to the Department.

Key Accomplishments for FY 2006-07: The following planned objectives were completed in FY 2006-07.

- Create and maintain commercial Landing Receipt and Commercial Passenger Fishing Vessel (CPFV) database
    - Created and maintained commercial Landing Receipt and Commercial Passenger Fishing Vessel (CPFV) databases
    - Entered data from 61,170 Landing Receipts
    - Entered data from 31,279 CPFV logs

- Landing Receipt Books
    - Designed, printed, and distributed all Landing Receipt books (and several Logbooks) for the State of California

- Lobster Log database
    - Created and maintained 2006-2007 Lobster Logbook database.

- Transportation Receipt database
    - Created and maintained Fish Transportation Receipt database.

- California Commercial Landings for 2006
    - Generated and distributed the preliminary and final versions of the California Commercial Landings for 2006 report.

- Reports of landing activity and summarized landing data
    - Provided reports of landing activity and summarized landing data – on a continual basis - for Department Enforcement staff, NMFS Special Agents, other enforcement agencies, courts, environmental firms, private consultants, and the public.

- Update Landing Receipt User's Guide for 2007 and mailed to every licensed Multi-Function, Receiver, and Fish Retailer Fish Business in March 2007.

- Landings Data Processing System Review
    - Cooperated with the Department's Information Technology Branch on scoping of a project to update and improve the Commercial Fisheries Information System (CFIS) software.
    - Initiated project to contract out (using OPC/Department joint funding) program review and recommendation development for improving the landings data and logbook information processing.

Key Measurable (Planned) Objectives for FY 2007-08: Marine Fisheries Statistical Unit objectives represent ongoing Department activities and obligations that do not change substantially from year to year. During 2007-08 the project would begin implementation of the landings data processing system recommendations made by the 2006-07 workgroup and contractor; and approved by management.

Sub-Project 2a: Socio-economic Valuation (Marine Region Economist)

This project provides economic analyses of California's marine resources, including both descriptive characteristics and impact projections from an economics perspective. This is in support of the State's required regulatory analyses and documentation of proposed legislation, Department management proposals and marine fisheries plans, and documentation for conformation with Federal regulations for species found in State waters. The project (position) performs other ad hoc economic analyses and documentation as needed, for: disaster declarations, Congressional analyses for State's fisheries, and as requested by the Governor's Office, the Fish and Game Commission, the Department of Finance, or the Legislative Analyst's Office.

Key Accomplishments for FY 2006-07: In FY 2006-07 the Socio-economic Valuation project completed the following:

- California regulatory process, proposed rulemaking economic and fiscal impact analyses and documentation (ongoing).
    - Economic analyses were completed for each of four regulatory packages;

Title 14, Sect 704(a), California Code of Regulations (CCR) - Automated License Data System, Sect 27.80 - Ocean Salmon Sport Fishing, Sect 1.74 (and other) – Sport Fishing Report Card and Tagging Requirements, and Sect 163 and 164 – Harvest of Herring and Harvest of Herring Eggs.

- Salmon disaster declaration and assistance program economic analyses
    - Staff finalized the statement of work for economic research on California and Oregon commercial salmon fleets.

- Attend IMPLAN (Impact Analysis for PLANning) training course
    - Staff attended an IMPLAN workshop arranged through Humboldt State University in June 2007. Training was tailored to the needs of a small group of researchers and staff involved in economic research on California's commercial fishing fleets.

- MLMA (California's Marine Life Management Act) and MLPA (Marine Life Protection Act) research on essential fishery information - socioeconomic (Contracts)
    - In May 2007, the Department entered into a contract with Humboldt State University to survey fishermen on the economic structure of California's commercial fishing fleets. Revenue, operating cost, and fishing activity information from 2,000 commercial fishermen will be collected up through November 2007.
    - In June 2007, a contract with Ecotrust was entered into for surveys and reports on commercial fishermen from the North Central Coast areas of California. The NCC study region covers coastal fishing areas from Pigeon Point (San Mateo County) North to Alder Creek (Point Arena – Mendocino County). To date, fisherman information has been collect from 178 individual interviews

Key Measurable (Planned) Objectives for FY 2007-08:

- Particpate in the California regulatory process, proposed rulemaking economic and fiscal impact analyses and documentation (ongoing)
- Participate in Department fiscal impact assessments (ongoing)
- Particpate in Federal regulation conformation economic analyses (ongoing)
- Participate in fisheries plans and proposals economic analyses (ongoing)
- Particpate, in MLMA (California's Marine Life Management Act) and MLPA (Marine Life Protection Act) research on essential fishery information – socioeconomic, including:

    - Completion of contract with Ecotrust for survey and report on commercial fishermen from the North Central Coast areas of California.
    - Finalize contract between NOAA and Humboldt State University to conduct economic research on California and Oregon commercial salmon fleets

- Continue research efforts with Humboldt State University to survey fishermen on the economic structure of California's commercial fishing fleets.

Program: *Marine Resource Assessment*

Project: Fisheries Independent Resource Assessment - Remote Operated Vehicles (ROV)

MRAP Project 3 has a number of components. The core project, **remote operated vehicle (ROV) surveys,** is currently focused on providing assessments of finfish at the recently created Marine Protected Areas (MPAs) off the northern Channel Islands in conjunction with the Marine Life Protection Act (MLPA). The project also has a number of independently staffed subprojects **including abalone and related sea urchin assessments** linked to the recently adopted Abalone Recovery and Management Plan (ARMP); a **kelp forest monitoring** Biologist, and support for the **California Cooperative of Oceanic Fisheries Investigations** (CalCOFI).

- **ROV:** The Project's ROV team is developing an important monitoring tool to help assess the effectiveness of MPAs. Project development and sustainability has been complemented by a long-term partnership with Marine Applied Research and Exploration (MARE), The Nature Conservancy, the Ocean Protection Council (OPC), NOAA, Pacific States Marine Fisheries Commission (PSMFC), and other partners that share Department goals and costs. While currently focused on MPAs and associated finfish and essential habitat, the continued success of ROV-based quantitative methods will provide the basis for developing cost effective sustainable assessments throughout California. This program also provides a model for partnerships and sustainable assessments statewide.

- **Abalone, kelp, and artificial reef sub-projects:** Additional areas of focus in our project includes work on abalone assessments mandated by implementation of the Abalone Recovery and Management Plan (ARMP) and one staff member focused on yearly kelp forest and artificial reef based assessments and monitoring.

- **CalCOFI sub-project:** One of our project staff is involved half-time as one of two Department liaisons to the CalCOFI program. CalCOFI was established in 1949 as a group of scientists & technicians at Scripps Institution of Oceanography (SIO), the National Marine Fisheries Service (NMFS), and the Department to conduct quarterly cruises off California, hold an annual conference, and produce an annual publication. The long time series of measured larval production and physical oceanography maintained by the CalCOFI program provides a foundation for scientists to measure changes in larval recruitment as the climate changes over time.

Key Accomplishments for FY 2006-07: The following planned tasks were completed in FY 2006-07:

ROV based assessments: The ROV portion of the project completed several objectives for FY 2006-07, four of which were newly added.

- Completed ten sites (84 km of transect) at the northern Channel Island MPAs were quantitatively sampled for finfish abundance and habitat.
- Conducted survey post-processing and data analysis for the 84 km of transect was completed.
- Prepared a written proposal associated with the need to begin ROV sampling on the Central Coast MPAs.
- Hired and trained 3.5 PYs of scientific aid staff allowing for more cost effective post processing of ROV video data.
- Established and filled a new seasonal aid position to provide library support for marine region staff from the collaborative Moss Landing Marine Lab library.
- Established the ROV post-processing lab in the Eureka office instead of the Moss Landing Marine Labs.
- Published a research paper on the quantitative precision of the ROV design.
- Presented a talk on Project results at the CalCOFI symposium in Monterey.
- Presented Project protocols was to both Channel Islands National Marine Sanctuary and Central Coast MPA technical committees.

Abalone assessments:

- Participated on 3 abalone assessment cruises.
- Hired and trained a Scientific aid to assist with abalone surveys and to enter abalone report card information for 2006 into the database.

Remote sampling and artificial reefs sub-project:

- Completed the 2006 coast-wide kelp survey photo over-flights.
- Digitized photos and added the data to the time series on the Department's website.

The CalCOFI subproject involvements:

- Hosted the CalCOFI Conference Dec. 4 through 6, 2006 at Asilomar Conference Center in Pacific Grove.
- Coordinated the publication of CalCOFI Reports Volume 48 including sending manuscripts submitted for publication out for peer review.
- Participated in the quarterly CalCOFI cruises sampling larval fishes and invertebrates as well as physical and chemical oceanographic parameters.

Key Measurable (Planned) Objectives for FY 2007-08:

ROV based assessments:

The ROV team will continue the time series of northern Channel Island MPA assessments initiated in 2004. The program will expand to include invertebrate monitoring to further develop the ROV as an important tool for assessment. The project will be prepared to continue ongoing assessments while producing a critical evaluation of the three year time series off the northern Channel Island MPAs.

- Continued sampling and post processing of fish habitat and abundance at the ten sites located on and off of the five northern channel Island MPAs and addition of new MPA-related sites within the newly established Central Coast MPA region.
- Ongoing Integration of the 2007 MPA survey in the geo-data base with Department data program staff.
- Write a cruise report.
- Publish 2007 data on web-page and in 2007 final report.
- Initiate preparation of a published report summarizing a three year time series of surveys at ten sites to evaluate program effectiveness in anticipation of the Commission 2008 northern Channel Island MPA evaluation.
- Train staff from other projects as part of expanded ROV assessments if and when redundant equipment with MARE is procured (e.g. abalone, sea urchin, sea cucumbers, squid, etc.)
- Publish peer reviewed paper on sampling design that will allow managers to determine what sampling levels are needed and what it will cost for future surveys.
- Publish paper on precision of quantitative tracking protocols initiated in 2006 to determine habitat relief.
- Incorporate new sizing protocols as part of ROV survey.
- Procure redundant improved ROV system with MARE,
- Design upgrade of entire system for 2007/08 and upgrade entire system to new standards using Department funds and Ocean Protection Council grant.
- Continue hiring and training of post processing staff (3.5 positions of scientific aid staff). Establish a permanent post processing lab near a state university.

Abalone assessments:

- Continue ARMP mandated assessments at key index sites.
- Pursue a collaborative arrangement with Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO) to link subtidal abalone sampling programs.
- Participate in assessments of abalone and sea urchins at three of the eight key Index stations in Sonoma and Mendocino Counties.
- Produce tri-annual status of northern fishery report summarizing results of index site surveys as required by the Commission.
- Recapture tagged abalone at Van Damme State Park from study of movement in and outside of free diver depth refuge.
- Prepare a report on movement based on mark and recapture locations.

- Participate in annual recruitment surveys using recruitment modules (artificial substrates).
- Assess abalone meat weight differences in different seasons to determine changes during the fishery from April thru November (excluding July).
- Prepare a draft paper of non-fished abalone resources in northern California.
- Draft a report comparing abalone densities at the Stornetta site in 2007 with data from 2004 (prior to the opening of this site to public access).

Remote sampling and artificial reefs sub-project:

The kelp survey sub-project may be expanded to include reviewing other ongoing remote sampling such as satellite based kelp assessment, nearshore aerial habitat mapping using radar (LIDAR) and sub-sea sonar mapping.

- Oversee contract on kelp flight surveys.
- Generate an annual summary report of existing and planned mapping with input from the various Department Projects involved in assessment and management.
    - Identify assessment gaps and potential partners to provide mapping.
- Initiate an archival GIS based data base with web-linkages to source maps
- Work with Data Management and Coordination project to establish a library of source mapping for various projects.
- Initiate contract for needed sonar or remote mapping.
    - Identify potential partners for in-kind support (e.g. vessel time and or funding.
    - Manage contract.

The CalCOFI subproject involvements:

CalCOFI is going to be working with the state more in 2007-08 to look at larvae of species of concern to both the federal and state fisheries management agencies.

- Participate in quarterly sampling cruises
- Staff sorting of samples for invertebrates managed by the state.
- Produce larval abundance reports for fishery management
- Produce CalCOFI Reports publication and fishery reviews
- Participate in annual CalCOFI Conference
- Conduct quarterly CalCOFI Committee business meetings
- Participate in OPC funded work to sample nearshore stations as well as invertebrate larvae.

Program: *Marine Resource Assessment*

Project: Data Base Management

This project consists of a group of data base and GIS specialists that develop, maintain, and sometimes analyze fishery and habitat data bases for the MRAP and Marine Region management units. The project inventories historical and current data bases and ensures they are in usable, up-to-date form.

Key Accomplishments for FY 2006-07: The following planned activities were completed in FY 2006-07:

- Conducted an inventory and status assessment of all marine commercial fishery logbooks and engaged a consultant to begin the process of developing a database system for consistent electronic entry and maintenance of logbook data.
- Conducted an inventory and status assessment of Marine Region project data bases, and initiated the process for developing data entry and database maintenance standards.
- Supported the Marine Protected Areas Project through the creation of GIS layers and maps.
- Assisted with data management and analysis of habitat, species, and stakeholder-input data related to the creation of Marine Protected areas.
- Improved and maintained the squid logbook and sample Access databases for the Coastal Pelagic and Highly Migratory Species Management project. This involved modification or creation of new access forms related to data entry and editing, creation of new queries to help the biologist analyze their data, and modification to the table structures to incorporate the collection of new data.
- Supported the Coastal Pelagic and Highly Migratory Species Management project through the creation of GIS layers and maps.
- Supported the Invertebrate Management Project by creating GIS layers and maps related to abalone and kelp density, and abalone survey locations
- Supported the Recreational Fisheries Data Project and the California Recreational Fisheries Survey through the creation and distribution of the CRFS map series.
- Supported the State Finfish Management Project by creating GIS layers and maps as needed, and by creating data collection forms to collect Progressive Angler Survey data using Pocket PC's. An Access database was also created to store and display Progressive Angler Survey data.
- Supported the Groundfish Management Project by creating GIS layers and maps. The GIS lab also supported the data management and analysis related to the groundfish hot spots project.
- Responded to requests from other Marine Region staff for GIS support, data management and analysis support, and graphic design support on an as needed basis.
- Responded to requests from the public for GIS data.

Key Measurable (Planned) Objectives for FY 2007-08:

- Develop the GIS data layers necessary to identify and evaluate the next network of MPAs under the Marine Life Protection Act.
- Begin updating all historical and current Marine Region biological and habitat data bases to ensure their compliance with Biogeographical Data Branch standards.
- Assist in the development of one central database to maintain commercial fishery logbooks.

Program: *Marine Resource Assessment*

Project 5: Research Vessel Operations

The Marine Region has several research vessels, ranging from skiffs to an 85-foot trawler. Research Vessel Operations staff maintains these vessels, prepares them for field activities in cooperation with Biologists, schedules there use, and (in the case of larger vessels) operates them. Senior operators are also trained in the operations of large Enforcement Branch marine vessels for both research and enforcement purposes. The Marine Region's research vessels are often operated in support of research activities by universities and other agencies.

Key Accomplishments for FY 2006-07: The following planned objectives were completed in FY 2006-07:

- Operated R/V Garibaldi on trips totaling 94 days:
- Operated the R/V Barracuda for twelve days
- Operated Remora for 7 days for Quagga Mussel survey
- Completed maintenance and repairs on the R/V Garibaldi including:
- Completed maintenance and repairs on the R/V Barracuda including:
- Completed maintenance and repairs on the R/V Remora including:
- An MOU was drafted for sharing use of the Region's vessels with other Department entities.

Key Measurable (Planned) Objectives for FY 2007-08:

- Operate vessels during scheduled cruises throughout the year, but primarily during the late spring through fall period.
- Perform necessary maintenance and repairs on Marine Region vessels to ensure their availability during the 2007 season.
- Perform approved maintenance/repairs/improvements to Marine Region vessels to have the vessels in turn-key condition for the 2008 field season.

- Prepare the R/V Mako for divestment or use during 2007-2008.
- Continue to update inventory of all Marine Region vessels and assessment of their conditions.
- Continue to develop recommendations for fleet additions and deletions.
- Continue to develop a plan for ensuring the ongoing maintenance of desired vessels in "turn key" condition.
- Assess the personnel necessary to operate and maintain desired vessels in "turn key" condition and take steps to add personnel if necessary.

Program: *Marine Resource Assessment*

Project 6: Fishery Independent (SCUBA) Assessment

Using primarily SCUBA-based methods, the staff of this project conducts surveys of fish and invertebrates in nearshore sub-tidal habitats, coast-wide. In some cases this is for purely stock assessment and monitoring purposes, while in other cases it is to evaluate specific management measures. Often this project works in partnership with other agencies and academic institutions to accomplish large-scale, collaborative research and monitoring efforts.

Key Accomplishments for FY 2006-07:

- Provided "core" support for Channel Islands National Park's expanded Kelp Forest Survey.
- Produced Status of the Fisheries Reports for both cabezon and kelp greenling.
- Conducted a "hot spot" analysis of barred sand bass catches in the Southern California Bight from 2004 to 2005. This information indicated key areas that are likely spawning aggregations and will be used to design a monitoring study of barred sand bass movement patterns in FY 2007-08.
- Conducted annual Department SCUBA diver certifications and re-certifications, maintained professional memberships in the American Academy of Underwater Scientists (AAUS), and provided planning and logistical support for Department dive projects in coastal and inland environments for biological surveys and enforcement.
- Provided planning and logistical support to U.S. Fish and Wildlife Service-led surveys to locate and eradicate the invasive Quagga mussel in California waterways.
- Hired and trained six new project staff.

Key Measurable (Planned) Objectives for FY 2007-08:

- Initiate a study to determine spatial and temporal trends in abundance of recreationally important surf fishes.

- Initiate a study to determine barred sand bass movement patterns relative to their spawning aggregations.
- Initiate a study on kelp greenling age, growth, and maturity along the central California coast.
- Collaborate with other researchers to study abundance, movement patterns, and site fidelity of nearshore rocky reef fishes within a long-standing Marine Protected Area (MPA) at Point Lobos within Carmel Bay.
- Initiate a study to determine baseline information on rocky reef fish abundance and movement patterns at the newly created MPA at Carmel Pinnacles.
- Continue providing some "core" support for Channel Islands National Park's expanded Kelp Forest Survey on an ongoing basis.
- Continue conducting annual Department SCUBA diver certifications and re-certifications.
- Continue participation in U.S. Fish and Wildlife-led Quagga mussel location and eradication efforts.
- Author or co-author manuscripts on yellowfin croaker demographics, yellowfin croaker diet, age and growth of California corbina, and sampling design using ROVs.

Program: *Administration and License Sales*

The objective of this program is to provide overall guidance and support to Marine Region staff for administrative operations of the Department, and to achieve program goals.

Project: Administration and License Sales

This project provides administrative and license sales support for the Marine Region. These services include but are not limited to: development and management of Marine's budget and administrative services; contracts; business services; property management; telecommunications; purchasing; accounts payable; building and facility management for numerous offices; health and safety administration; personnel transactions and payroll; and training coordination; and word processing and reception.

Key Accomplishments for FY 2006-07:

- **Management Coordination and Planning:** Furnished management and supervisory direction to ensure conformance with policies and accomplishment of Marine Region objectives. Planned, organized and directed all aspects of Marine Region administration to assure consistent and complete administrative support for all programs and projects within the Marine Region and effective interface

with all headquarters fiscal and control operations through all available mechanisms (telephone, e-mail, meetings, committee participation, written documentation, etc.)

- **Budget Management:** Oversaw allotment review management, transfer of budget allotments (more than 300); managed federal/reimbursement funds, implemented budget actions, met and coordinated with Department's administrative leaders, Budget Branch staff and region senior management; monitored fund source management; developed and implemented BCCPs and BCP's, oversaw position control management, played a leading role in the Department's Fiscal Systems Review Project in which we have transitioned from organizational to programmatic budgeting, translated all old allotments and codes to a numeric system to create meaningful transparency in budgets and expenditures; prepared all relevant documentation and obtained proper approvals.

- **Contracts:** Developed, implemented and monitored numerous reimbursement, payable, federal and short form contracts. (26 large contracts and 42 short form contracts).

- **Personnel Services:** Processed 192 RPA packages that include all relevant documentation (estimated at 1,700 documents for reclassification and filling new positions as well as documents for filling other vacancies or processing other actions). Maintained current position control and updated organizational charts. Provided full range of payroll and benefits support to 264 employees (152 Permanent Full-Time employees; 82 Enforcement employees and approximately 30 Temporary Help employees).

- **License Sales/Cashiering/Reception/Public Information:** Provided the public with license sales, permits, stamps and tags. Obtained and controlled license stock inventory; deposited, collected revenue and prepared license reports; managed separation of duties for cash operations in Los Alamitos and Monterey.

- **Business Services:** Prepared purchase contract documents, requisitions and supply orders as needed. Maintained property (vehicles, vessels, computers and other equipment) via controlled inventory and tracking process; surveyed and arranged for disposition of unserviceable property. Trained all staff on use of Department's Business Information System (BIS) software for accurate and effective management of procurement, payment and expenditure control. Maintained or developed new safety plans and security needs where needed. Developed and tracked space planning and allocation, facility maintenance and operational needs for the Region.

Key Measurable (Planned) Objectives for FY 2007-08:

- **Management Coordination and Planning:** Furnish management and supervisory direction to ensure conformance with policies and accomplishment of Marine Region objectives. Plan, organize and direct all aspects of Marine Region administration to assure consistent and complete administrative support for all programs and projects within the Marine Region and effective interface with all headquarters fiscal and control operations through all available mechanisms (telephone, e-mail, meetings, committee participation, written documentation, etc.)

- **Budget Management:** Oversee allotment review management, transfer of budget allotments; manage federal/reimbursement funds, implement budget actions, meet and coordinate with Department's administrative leaders, Budget Branch staff and region senior management; monitor fund source management; develop and implement BCCPs and BCP's, oversee position control management, play a leading role in the Department's Fiscal Systems Review Project in which we have transitioned from organizational to programmatic budgeting; manage Index/PCA codes; prepare all relevant documentation and obtain proper approvals.

- **Contracts:** Develop, implement and monitor reimbursement, payable, federal and short form contracts.

- **Personnel Services:** Process RPA packages that include all relevant documentation for reclassification and filling new positions as well as documents for filling other vacancies or processing other actions. Maintain current position control and update organizational charts. Provide full range of payroll and benefits support to Permanent Full-Time employees, Enforcement employees and Temporary Help employees.

- **License Sales/Cashiering/Reception/Public Information:** Provide the public with license sales, permits, stamps and tags. Obtain and control license stock inventory; deposit, collect revenue and prepare license reports; manage separation of duties for cash operations in Los Alamitos and Monterey.

- **Business Services:** Prepare purchase contract documents, requisitions and supply orders as needed. Maintain property (vehicles, vessels, computers and other equipment) via controlled inventory and tracking process; survey and arrange for disposition of unserviceable property. Train all staff on use of Department's Business Information System (BIS) software for accurate and effective management of procurement, payment and expenditure control. Maintain or develop new safety plans and security needs where needed. Develop and track space planning and allocation, facility maintenance and operational needs for the Region.

25.35 SPORT FISHING AND PUBLIC USE

The management activities of **Program 25 - Element 25.35 Sport Fishing** and public use provide for diverse and sustainable recreational fishing opportunities and other public uses and associated economic benefits to the State.

The statewide objectives of the program include acquiring and analyzing data on fish populations and angling success, developing and assessing sport fishing regulations and policy, providing information to the public, preservation and restoration of freshwater fish habitat, statewide fishery disease management, fish species management, and preservation of salmon and steelhead runs. Activities also include development, review, and/or implementation of habitat restoration plans, fishery management plans or other management measures for fish species taken recreationally.

These fisheries programs cover four broad categories of fish relating to inland sport fishing:

- Resident Trout (non-anadromous);
- Warmwater Fisheries (black bass, sunfish, catfish);
- Anadromous (Salmon and steelhead);
- Delta and Central Valley (Striped bass, Sturgeon, Splittail, and American Shad)

The recent U.S. Fish and Wildlife Service (USFWS) report *2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation* estimated over 19.4 million days of sport fishing were conducted in California during 2006 with more than 12.3 million days of sport fishing conducted in inland waters. Over 94% of all the anglers surveyed for this report were residents of California despite the fact these anglers account for only 5% of California's entire population.

In 2001, the comparable USFWS estimates were 27.7 million days of sport fishing were conducted in California with more than 19.3 million days of sport fishing conducted in freshwater.

Public interest remains high for sport fishing which provided an economic benefit to California of over $2.4 billion in 2006 total expenditures as estimated by the USFWS 2006 report. The comparable 2001 USFWS estimate was $2.0 billion.

With the continued public interest in sport fishing and the attendant significant economic contribution, the management activities of this program are very important to California.

PROGRAM DESCRIPTION

POLICY AND REGULATIONS

The Fisheries Branch (FB), in conjunction with regional and appropriate division staff, develops or updates policy, regulations, and Department positions for management, recovery, assessment, and research on California's fishery resources. The FB role ensures a consistent statewide approach to management, use, and restoration of inland and anadromous fish species and habitat.

Other activities include development of recommendations for proposed legislation, analysis of bills or other actions as appropriate for proposed fishery resource legislation, coordination of development and review of freshwater regulatory documents, monitoring the effect of those regulations, and ensuring statewide consistency with existing laws and regulations and Fish and Game Commission (Commission) policy.

One position is fully dedicated to this program.

FISH HEALTH AND DISEASE MONITORING

The Department's Fish Health Laboratory ensures statewide compliance and continuity for disease issues and problems that occur or may occur throughout California. It is the responsibility of Fish Health Laboratory staff to inspect and certify that fish from state, private, and imported sources are free of disease and meet state standards and policies for stocking and transportation. Restrictions on movement and disposition of fish may be imposed by Fish Health Laboratory staff under authority provided for such actions in the Fish and Game Code.

The primary functions of the Fish Health Laboratory are to:

1. Respond to statewide fishery disease management needs and provide direction;
2. Coordinate the review and issuance of aquaculture registrations, private stocking permits, and fish and egg importation permits with Division, Branch and Region staff;
3. Ensure statewide compliance and continuity concerning disease issues and problems that occur or may occur throughout California;
4. Conduct inspections and certify fish from state, private, and imported sources are free of disease and meet state standards and policies for stocking and transportation; and
5. Place restrictions on movement and disposition of fish under authority provided for such actions in the Fish and Game Code.

FISHERIES MANAGEMENT

Working closely with other Department functions, agencies, and constituents, the Fisheries Management Program ensures a consistent statewide approach to management, use, and restoration of inland and anadromous fish species and their habitats.

The primary functions of the Fisheries Management Program are to:

1. Coordinate statewide inland fisheries management activities with all Division, Branch, and Region staff including activities associated with manipulation or non-manipulation of fish and their habitats;
2. Provide leadership for managing fish issues of statewide significance in an effort to avoid or resolve conflicts;
3. Lead status review efforts for proposed California Endangered Species Act (CESA) listed species and develop the Department's position on federal and state fish listing actions;
4. Develop, and coordinate the implementation of, recovery plans for federal and state listed species;
5. Collects, store, and distributes fish tissues statewide;
6. Oversee and coordinate the Steelhead Fishing Report Card and Sport Fish Restoration Account Program;
7. Coordinate statewide restoration of fish habitat through grant programs and other means;
8. Provide technical expertise for fish passage programs; and
9. Provide outreach and liaison to other government agencies; conservation organizations, private landowners and the public.

RESOURCE ASSESSMENT (EXCEPT MLPA)

The Resource Assessment Program oversees data collection and analysis for program planning and accountability, including activities intended to collect information on the population structure, life history, ecology, behavior and population dynamics of inland fish populations, and the effects of environmental modifications and harvesting.

The roles and responsibilities of the Resource Assessment Program are to:

1. Coordinate the development of statewide sampling and sample design protocols;
2. Coordinate the collection and analysis of information about statewide fish populations, including but not limited to, the preparation of information necessary for statewide management of kokanee and inland Chinook salmon in reservoirs;
3. Oversee statewide fisheries and related data collection and reporting;
4. Prepare and coordinate the preparation of reports on the population structure, life history, ecology, behavior, and population dynamics, and the effects of environmental modifications on fish populations;
5. Coordinate and control in-state movement and statewide importation/exportation of fish;
6. Analyze data to provide input for the management and regulation of native and nonnative fish populations; and
7. Provide technical support for the collection and storage of information to Division, Branch, and Region fisheries staff.
8. Review and modify fishery policy and regulations at the request of the Commission.

STATUTORY MANDATES

LEGAL CITATIONS AND AUTHORITIES

Authority	Section Number or Other Reference
Fish and Game Code Fish and Game Code	Sections 200-240 Sport Fishing Regulations Section 703 Commission Policies for Department Conduct
Fish and Game Code Fish and Game Code Fish and Game Code	Section 1008 Investigation of Diseases Sections 1170-1175 Private Nonprofit Hatcheries Sections 1200-1206 Cooperative Salmon and Steelhead Rearing Facilities
Fish and Game Code Fish and Game Code Fish and Game Code Fish and Game Code Fish and Game Code	Sections 1725-1728 Trout Management Sections 1740-1743 Black Bass Conservation and Management Section 2003 Fishing Contests Sections 2005-2116 Endangered Species Section 2270-2272 Importation of Live Aquatic Plants and Animals
Fish and Game Code Fish and Game Code Fish and Game Code Fish and Game Code Fish and Game Code	Sections 6300-6306 Infected and Diseased Fish Sections 6400-6403 Fish Planting and Propagation Sections 6440-6460 Management of Triploid Grass Carp Sections 6900-6924 Salmon, Steelhead Trout and Anadromous Fisheries Program Act
Fish and Game Code Fish and Game Code Fish and Game Code	Sections 7360-7363 Bay-Delta Sport Fishing Section 7370 Sturgeon Sections 7380-7381 Steelhead Trout
Fish and Game Code	Section 13007 Hatchery and Inland Fisheries Fund
Fish and Game Code	Appendix Fish and Game Commission Policies

PROGRAM OUTCOMES

POLICY AND REGULATIONS

Fisheries Branch (FB) Regulatory Unit
The FB Regulatory Unit (FBRU) prepares and reviews documents to implement regulations, policies and management strategies for sport inland fisheries under Commission authority. These regulatory actions are including but not limited to sport fishing regulations, fishery management plan implementing regulations, permit requirements, harvest restrictions and in-season regulatory adjustments.

The FBRU works with Commission staff along with appropriate Division, Branch and Region staff in developing and evaluating management options for the State's inland sport fisheries, and provides information to policymakers for decision-making purposes. The FBRU assists coordination of state fishery management regulatory actions with the Pacific Fishery Management Council, the U.S. Fish and Wildlife Service, and the National Marine Fisheries Service.

The FBRU serves as a liaison with the Conservation Education office and the public on inland and marine regulatory items, and increase public awareness of the Department's mandates, policies and goals. It responds to calls from the press, public, other agencies and constituents requesting information on regulatory changes, rulemaking progress and developments.

Ongoing Activities -
Sport Fishing regulations for inland waters are adopted or amended in response to recommendations from the public, the Department, the Commission, or other agencies. Regulations for the Klamath River are reviewed and amended annually during the period from February through May in response to annual Pacific Fishery Management Council recommendations. Documentation required for adoption and amendment of sport fishing regulations, including Initial and Final Statements of Reasons and Summaries and Analyses of Public Recommendations. Scheduling for the preparation of documents and information is based on requirements and schedules set by the Commission and the Office of Administrative Law.

FISHERIES MANAGEMENT

Salmonid Conservation Biology and Genetics Unit
This unit is responsible for providing statewide coordination, oversight, and consultation for conservation biology, monitoring, and genetic research to facilitate recovery of CESA- and ESA-listed anadromous fish within the state. The unit acts as the Department's expert on conservation biology and genetics, interpreting complex population ecology, reproductive biology, and genetic information and applying it to research, recovery, regulatory, and management activities. This unit evaluates, reviews, and analyzes the best available science used to support ESA and CESA listing and

delisting proposals. The unit also coordinates genetic tissue collection and management of the Central Valley Anadromous Salmonid Tissue Archive, in coordination with other agency archives like the National Marine Fisheries Service's Coastal Salmonid Tissue Archive and laboratories, the U.S. Fish and Wildlife Service's archive and laboratories, and tissue archives and genetic laboratories in other states. The unit provides expert assistance to the Department's regional biologists and managers in interpreting and applying conservation and genetic principles and data to development and implementation of Hatchery and Genetic Management Plans, hatchery genetic stock management, recovery hatchery and hatchery conservation programs, maintenance of genetic integrity of hatchery and wild stocks, recovery planning and project implementation, population viability and extinction risk assessment, and genetic and population monitoring.

Statewide Steelhead Management and Recovery Unit

This unit is the primary liaison with other Department functions, agencies, and the public concerning steelhead policy and restoration and management of steelhead in inland waters. Staff coordinates with other Department functions, other agencies, and the public on development and implementation of specific projects to restore steelhead, particularly on projects in furtherance of recommendations made in the Steelhead Restoration and Management Plan for California. Staff members are available for ongoing consultation and provide technical leadership in research and recovery planning for steelhead, participate in state and federal recovery planning processes, and will be responsible for policy on recovery of steelhead runs. Staff coordinate Central Valley steelhead biological research projects, conduct analyses, prepare technical reports, and provide technical guidance for recovery planning efforts underway throughout the Central Valley.

FY 2006–07

Tissue samples were collected from nine streams for genetic and life history studies of steelhead. The genetic samples were sent to the NOAA Fisheries Southwest Fisheries Science Center for molecular analysis and comparison to a coastal rainbow trout and hatchery genetic database to ascertain genetic diversity among and between rainbow trout populations at several geographical scales. This information is used to manage steelhead fisheries throughout the Central Valley. The life history study objective is to evaluate the distribution and relationship of resident and anadromous life history types of rainbow trout in the Central Valley to help determine the presence or absence of steelhead in various Central Valley streams and whether the progeny of resident rainbow trout become anadromous rainbow trout (steelhead) or whether the progeny of steelhead become resident rainbow trout in these streams. This information is a keystone in developing steelhead management policy. Sampling was completed in July 2007 and the analysis and reports will be completed by February 2008.

Staff also reviewed and commented on habitat conservation plans or on proposals for restoration on seven major rivers. Participated in state wide hatchery meeting to ascertain where hatchery steelhead are to be stocked, in what numbers, and address potential problems. Staff chaired the multi-agency Central Valley Steelhead Project

Work Team to discuss ongoing Central Valley steelhead projects, ESA status, regulations, problems and suggestions for future studies/work.

FY 2007-08
As in the past year, staff continues to review fishery management plans for Central Valley rivers, and will assist with the development of a Central Valley Steelhead Monitoring Plan, acting as agency lead with Pacific States Marine Fisheries Commission and coordinating with other state and federal agencies on the development of the plan.

Steelhead Fishing Report and Restoration Card Unit
This unit oversees the Steelhead Fishing Report and Restoration Card program and provides biological expertise on restoration of steelhead habitat and on fishery management. Unit staff collect, electronically store, and analyze steelhead catch information from Report Cards returned to the Department by steelhead anglers, and periodically provides a report to the legislature on the success of the program. This information is analyzed to determine if and where impacts to steelhead populations may be occurring due to angling and to determine where restoration funds can be expended most effectively. The unit entertains funding requests for Department steelhead restoration projects throughout the year.

The *Steelhead Trout Catch Report-Restoration Card* (Report Card) was enacted by state legislation in 1991 and, was subsequently adopted by the California Fish and Game Commission. All anglers fishing for steelhead in inland waters must purchase a Report Card and record their steelhead fishing information, the data from which being used to manage steelhead angling to benefit steelhead and to prevent overharvest. Revenue derived from the sale of the Report Cards becomes part of a dedicated account and must be used to monitor, restore, or enhance steelhead resources. The angling data gathered from the Report Cards allows the Department to evaluate the timing of steelhead migration, angler effort and angler success by month for each stream.

Since 1993, the Report Card program has funded, or co-funded, 111 steelhead projects totaling approximately $1,198,500. These projects include steelhead population monitoring, assessment, rearing, habitat restoration, and education. Some projects combine restoration and education, where students and/or volunteers from communities implement the project under Department supervision. Some projects, such as “Salmonids in the Classroom", have provided immediate success and gratification for students and teachers alike.

With annual revenue exceeding annual spending authority, the Report Card dedicated account continues to grow and, as of December 2006, was $1.1 million. With the signing of AB 2773 and the appropriation of $800,000 through June 2009, the dedicated account will be reduced to a satisfactory balance and numerous additional steelhead monitoring and habitat restoration projects, particularly as identified within the Department's *Steelhead Restoration and Management Plan for California*, will be implemented.

FY 2006-07
In the calendar year 2006, 44,590 Report Cards were purchased. As of September 2007, 48,895 Report Cards have been purchased for the calendar year. Revenue from Report Card sales was $257,120 for the 2006-07 fiscal year. The Report Card program funded 13 projects for $167,774. In addition, approximately $25,000 was spent on program administration and operation, and data entry. In addition to administering steelhead contracts, considerable effort was expended analyzing the Report Card data in preparation and writing of the Report to the Legislature, July 2007, (http://www.dfg.ca.gov/fish/documents/SAL_SH/SHRC_LegRpt_2007.pdf).

The accomplishments and project funding from the Report Card are:

1. Modified and removed barriers (i.e., dams, culverts) to improve fish passage.
2. Screened diversions to protect emigrating juvenile steelhead.
3. Provided instream escape cover, sorted spawning gravels, stabilized stream banks, and increased the frequency and depth of pool habitats.
4. Stabilized eroding areas and revegetated upslope areas to reduce sedimentation.
5. Provided for riparian restoration and revegetation in, or adjacent to, the stream channel to increase habitat availability and reduce stream temperatures.
6. Monitored and maintained programs that address the biological and physical effects of completed projects; provided baseline and/or trend data for assessing recovery; maintenance and corrective actions.
7. Provided watershed organizational support to increase public involvement in support of watershed health.
8. Provided watershed education to the public and school districts that provided education on anadromous salmonid life cycles and habitat requirements.

Report Card catch data suggest that steelhead populations have improved for the north coast and Central Valley, and on a statewide basis, anglers are catching more steelhead (wild and hatchery combined) per trip, particularly on the coastal rivers.

Since most of California's steelhead stocks were listed under the federal ESA in the late 1990's, catch and angler data generated from the Report Card have taken on a greater significance regarding the Department's ability to comply with ESA protections for listed steelhead. The Department must develop and implement Fisheries Management and Evaluation Plans (FMEP) to assess and monitor the fishery to ensure that angling in the listed areas does not cause further impacts to, or impede the recovery of listed steelhead. The Department has identified steelhead angler effort and catch as performance indicators that will be monitored and evaluated on an annual basis to assess the achievement of the FMEPs. NOAA Fisheries-approved FMEPs would allow continued angling opportunities without jeopardizing the survival and recovery of listed steelhead. The Report Card program is integral to obtaining this information for ESA Rule compliance that allows angling opportunities to continue and improve.

FY 2007-08
Revenue from Report Card sales as of September 2007 is $27,795, approximately 131% of revenue as of September 2006 ($19,186). The Report Card program has currently approved 11 projects for funding for $446,550, plus about $20,000 directed toward administration, operation, and data entry. In addition to administering steelhead contracts, effort is being expended analyzing the Report Card data in preparation for a technical report and an alteration to steelhead regulations regarding increased harvest of hatchery steelhead to improve management of wild steelhead population recovery efforts and providing additional opportunities for steelhead anglers.

Coho Salmon Recovery Unit
This unit is the primary liaison with other Department functions, State, Federal, and local agencies, and the public regarding policy and coordinating implementation of the Department's Recovery Strategy for California Coho Salmon (Recovery Strategy). In consultation with appropriate Department personnel and programs, the California Statewide Recovery Team, and National Marine Fisheries Service (NMFS), the unit: 1) guides implementation and revision of the Recovery Strategy; 2) provides policy and technical expertise on legal and biological considerations to Department functions and entities outside the Department responsible for on-the ground implementation of recovery tasks; 3) prepares permits and memoranda of understanding; and 4) monitors and assesses progress of coho salmon recovery.

The unit is the primary Department liaison with NMFS' recovery planning and implementation for coho salmon in inland waters, and coordinates Department programs to ensure State compliance with the ESA and CESA. The unit prepares annual updates to the Fish and Game Commission concerning coho salmon recovery and is the primary Department liaison with Commission and Board of Forestry staff with respect to progress of coho salmon recovery. The Department Regions are responsible for on-the-ground implementation of the Recovery Strategy and oversight of compliance with CESA, including preparation of memoranda of understanding, incidental take permits, or other documents that may be required. The unit provides policy guidance and technical advice regarding details of implementation, and will coordinate with regional personnel to ensure that recovery implementation, CESA, and ESA are complied with consistently throughout the range of California coho salmon.

Coho salmon recovery and management is focused through the use of the Recovery Strategy for California Coho Salmon (2004). The types of activities that the program is involved in are monitoring, conservation hatchery, and various studies (e.g. streamflow, habitat, presents/absence surveys, photoperiod, salt water survival, genetic, estuary, etc.). The Fisheries Branch has two positions with three others within Regions 1 and 3 dedicated to coho salmon and its recovery. An allocation of $600,000 annually is dedicated specifically to coho salmon research, recovery, and habitat improvement projects.

FY 2006-07
There are four major projects funded from the annual budget: 1) The Russian River Coho Release Monitoring and Evaluation project involves extensive monitoring of coho released from the Warm Springs Hatchery Coho Salmon Brood Stock program. The $253,421 dedicated to this project was contracted to provide the stated invaluable data, although several portions of the original contract had to be cut due to insufficient funds.

2) The Bodega Marine Laboratory project provides required separation of the captive brood stock as stated in the Recovery Strategy (2004) for the Warm Springs Hatchery Coho Salmon Brood Stock program and other biological studies. 3) The Mendocino Coastal Monitoring project which monitored juvenile and adult coho salmon in several streams along the Mendocino Coast was granted $131,515.

4) The last major project split was between HSU Coop and the Mattole River Flow Program. The cost of these two programs was $51,064. The Mattole study monitored stream flow trends (temperature, flow, water use, etc). HSU supported coho salmon research related to life history and habitat improvement and was awarded $36,000.

The remaining $14,000 was use to conduct coho salmon recovery, genetics analysis and other coho related meetings and conferences, plus miscellaneous equipment purchases and other operating expenses for Department coho staff.

FY 2007-08
The projects allocated funding to date are the Russian River Coho Release Monitoring and Evaluation project and the Bodega Marine Laboratory project both of which are crucial for recovery of coho salmon with in a portion of the Central California Coast Coho Salmon ESU. The project cost for both will be approximately $400,000. Several genetic analysis projects needed for the Warm Springs Hatchery brood stock program could potentially absorb half or more of the remaining $200,000 in this years projected budget.

<u>Chinook Salmon Coordination Unit</u>
This unit provides coordination and lead technical expertise for Chinook salmon management, particularly for threatened and endangered runs. The unit is the primary liaison with other Department functions, state, federal, and local agencies including CalFed, and the public respecting policy on listed species recovery planning, habitat restoration programs, inland and ocean harvest management, and research and monitoring programs for Central Valley Chinook salmon. In addition, staff is the technical lead in coordinating sustainable management of fall and late fall-run Chinook salmon.

Significant effort is expended each year on the adult programs, including an estimated:

- 22.8 PYs biologist time,
- 45.0 PYs technician time,
- Total cost $ 3.7 million.

Escapement Monitoring estimates the number of Chinook salmon and steelhead returning to spawn in the Central Valley and has been made since the early 1950's and in some cases since the 1940's. The original purpose of the escapement surveys was to provide data for ocean harvest management, but purposes have now expanded to:

- Providing a sound basis for assessing recovery of listed stocks,
- Monitoring the success of restoration programs,
- Evaluating the contribution of hatchery fish to Central Valley populations, and
- Sustainably managing ocean and inland harvest.

Juvenile monitoring studies have been conducted in the Central Valley since the 1920's. Programs have evolved over the years, in response to development of new sampling technology and changes in program objectives. Data from juvenile monitoring programs are used to:

- Evaluate the success of habitat restoration programs,
- Evaluate the impacts of water project operations on salmonid survival,
- Manage water project operations for the protection of salmonids on a real-time basis, and
- Evaluate hatchery propagation programs.

Significant effort is expended each year on the juvenile programs, including an estimated:

- 35.4 PYs biologist time,
- 47.9 PYs technician time,
- Total cost of $ 5.7 million.

Bay-Delta Sturgeon Monitoring

Sacramento-San Joaquin River system adult sturgeon population information is primarily the result of tagging studies conducted seventeen (17) times beginning in 1954. Data from tagging studies is used to calculate 'absolute' abundance, 'relative' abundance, length- and age-frequency, harvest rate and survival rate.

Since peaking at about 144,000 in 1998, the estimated abundance of California's legal-sized white sturgeon has declined likely due to factors including, but not limited to, poor spawning success, variation in streamflow, passage impediments, entrainment, legal harvest, and illegal harvest. Information developed in November 2005 suggests that the abundance of legal-sized white sturgeon is now at a 50-year low of an estimated 10,000 sturgeon and abundance may not increase substantially during the next 10 years.

Adult green sturgeon absolute abundance is not known but all indications are that in the Sacramento-San Joaquin River system the numbers are low. From tagging studies, adult green sturgeon abundance is clearly much lower than that of adult white sturgeon. In addition, recent preliminary genetics information that became available in September 2005 support the notion that numbers are low in the Sacramento-San Joaquin River

system, indicating that fewer than 20 green sturgeon above Red Bluff Diversion Dam contributed to the production of juveniles in 2003 and 2004. Central Valley sturgeon harvest information has been collected by the Department's Central Valley Salmon and Steelhead Harvest Monitoring Project. In 2006, the Sturgeon Fishing Report Card was adopted by the Commission under its general authority to regulate the recreational white sturgeon fishery. All anglers regardless of age and fishing area carry the report card and incorporated removable tags are affixed to any retained white sturgeon. This approach was necessary to enforce the three-fish annual bag limit, collected additional angler data, deter poaching and stop illegal black-market activities. This report card is also required for anglers less than 16 years old and other non-licensed anglers to collect important information that would otherwise be underestimated or not counted. Sturgeon report cards are free to anglers, being paid for by Bay Delta Sport Fish Enhancement Stamp funds ($30,000).

Fish Passage Program

This program coordinates and leads the statewide interagency Fish Passage Forum (Forum), which coordinates existing agency programs and private sector activities across jurisdictions to improve timeliness and cost-effectiveness of fish passage restoration efforts. The Forum works to identify barriers, evaluate and prioritize restoration opportunities, provide consistent barrier inventory data, training, and public education and outreach. This program is also responsible for identifying fish screens, barriers, and water diversions within key watersheds across the regions, and oversees the development of a plan to monitor and evaluate fish passage effectiveness and to develop a mechanism for reporting annual progress to agencies, the legislature, Congressional representatives and the public.

The Forum was active in over 23 barrier removal projects and contributed or assisted many more in the planning stages. A new website with a Passage Assessment Database is maintained by Department. The program visited over 50 barrier removal and fish screen sites for technical review and attended five meetings to streamline State and Federal permitting for barrier removal projects.

Staff acted as coordinator for the anadromous SFRA grant program, coordinating statewide project activities and reports, provided technical support for 13 projects and budgets, and monitored project activities and reports to ensure compliance with Federal regulations. The CalFish Steering Committee coordinates consistency between Fish Passage websites and data gathering, oversees database development for fisheries and works closely with the Biogeographic Data Branch to ensure standardization of databases and coordinating with other fisheries programs. The program leads the Anadromous Fish Screen Technical Team, attended twelve meetings to oversee fish screen priorities, projects and funding, and provided oversight and review on ten projects.

Staff also represents the Department for the newly created California Fish Screening Workgroup for evaluation and coordination of State fish screening activities and projects which meets monthly with additional meetings of sub-groups.

Fisheries Restoration Grant Program

The Fisheries Restoration Grant Program (FRGP) is a collaborative effort that focuses on restoring anadromous fish habitat with the goal of ensuring the survival and protection of salmon and steelhead trout in coastal areas of California.

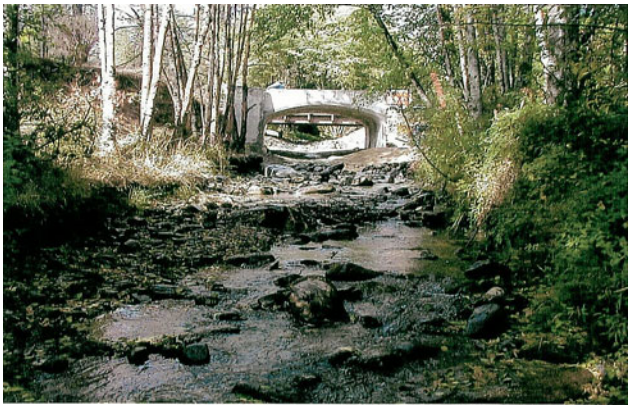
Established in 1981 in response to rapidly declining populations of salmon and steelhead trout and deteriorating salmonid habitat in California, this competitive grant program has invested over $180 million and supports a variety of projects from sediment reduction to watershed education throughout coastal California. Contributing partners include the Department, federal and local governments; tribes, water districts, fisheries organizations, watershed restoration groups, the California Conservation Corps, AmeriCorps, and private landowners.

FRGP funds proposals from eligible entities for habitat restoration projects and for projects that promote greater knowledge about anadromous salmonids and their habitat. FRGP is designed to increase populations of wild anadromous fish in coastal streams by protecting, conserving, and restoring their habitat in the context of an extremely diverse state. Geographical differences in rainfall, topography, plant communities and fish species vary widely, creating challenges in managing fish and wildlife resources and the equitable distribution of grant program funding.

Specific accomplishments over the last seven years (2000-2006) include:

- 895 miles of stream have been treated
- 53 miles of stream bank have been stabilized
- 122 miles of instream habitat has been restored
- 661 miles of stream have been opened by removing 440 barriers
- 5,467 acres of riparian habitat have been restored
- 1,283 miles of road have been treated to reduce sediment in salmonid streams

The majority of grant funding is awarded for habitat restoration projects that improve cover, spawning gravel, and pool habitat; reduce or eliminate erosion and sedimentation impacts; screen diversions, and remove barriers to fish passage. An example is shown in the following photographs where a barrier is removed by replacing a culvert with a bridge:



Funds have also been awarded for indirect habitat restoration activities such as cooperative fish rearing, acquisitions of riparian easements, research, project monitoring, watershed assessment and planning, support for watershed organizations, and public outreach and education, including classroom education for children, and technical workshops for adults and watershed groups involved in restoration projects. This outreach has resulted in increasing awareness about habitat necessary for anadromous fish to thrive, exposing thousands of young people to the importance of maintaining the integrity of watersheds.

With populations of some salmon at critically low levels, many opportunities exist for restoration projects that will directly benefit the salmon and steelhead trout in California, and FRGP typically receives more proposals than it can fund. In 2007 the program received a total of 215 proposals requesting over $43 million. In 2006, a total of 208 proposals were received requesting $31 million. The funds available in FY 2006-07 and 2007-08 are described in the following table:

Fiscal Year	PCSRF Federal Funds	State Match	Total Funds Available	# Projects Funded
2006-07	$6,318,512	$3,497,701	$9,816,213	74
2007-08	$7,866,547	$2,622,182	$10,488,729	66 (est)

Due to the extent and diversity of California's coastal watersheds the FRGP restoration project management activities are divided into five geographical areas (***Figure 1*** below). Within each area CDFG grant managers oversee restoration project work and conduct implementation monitoring on all completed projects to assess how well they were constructed and document as-built conditions.

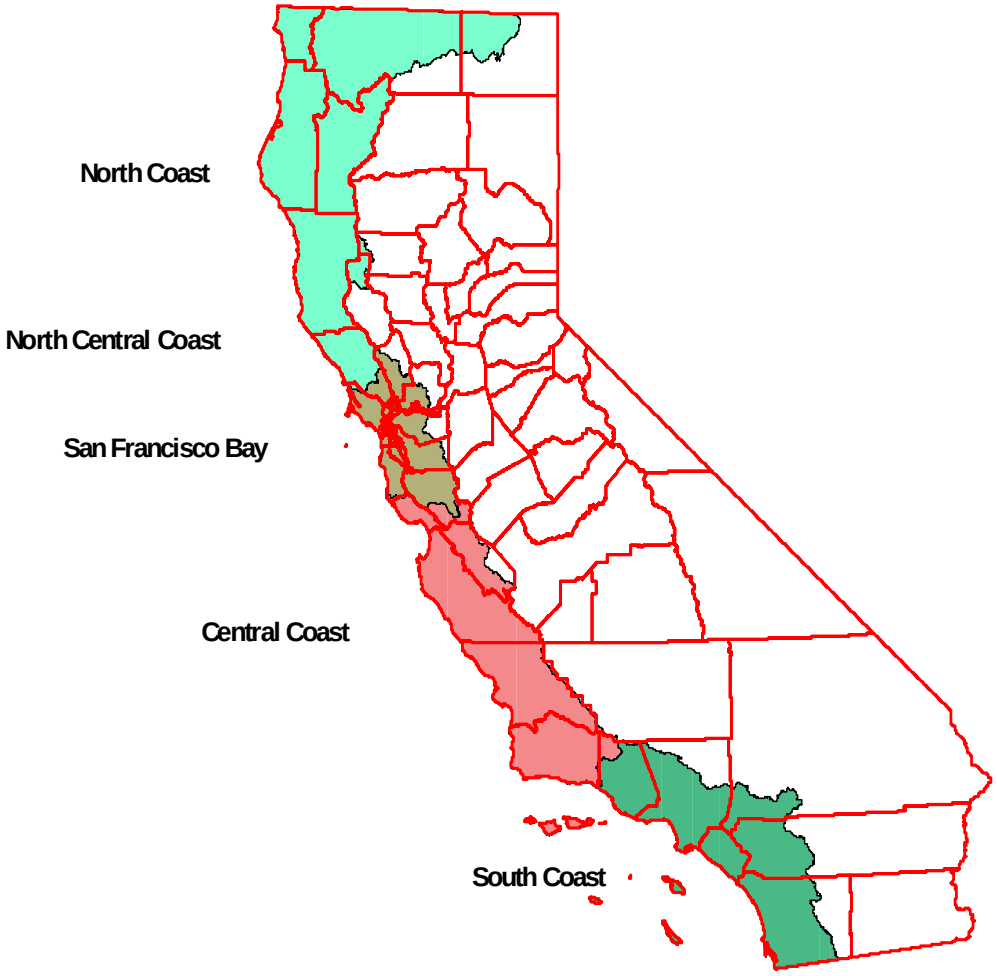


Figure 1. **Geographical Areas and Fourth Field Hydrologic Units Covered by the Department of Fish and Game's Fisheries Restoration Grants Program.**

Fish Permitting Unit

This unit is responsible for coordinating research permitting issues associated with ESA and CESA listed anadromous fish and Scientific Collecting Permits. This unit will coordinate ESA 4(d) Rule take authorization for Department anadromous fish research and monitoring and is the Branch coordinator for Scientific Collecting Permit application review. This unit will also provide policy guidance and expert consultation to regional and other Department staff on preparation of CESA 2081(a) research memoranda of understanding and other ESA and CESA permits, and will act as the anadromous fish permitting and research coordinator for the Branch.

RESOURCE ASSESSMENT (EXCEPT MLPA)

Lakes and Reservoirs Program

The Lakes and Reservoirs Program is designed to enhance fishing opportunities by making management decisions based on ongoing assessment of game fish populations and habitat status; to determine angler success and preferences through angler survey methods, fish tag returns, and fishing contest results; to improve juvenile fish habitat through placement of brush structures and/or by seeding of exposed shoreline areas at selected waters; and to maintain or improve fishing opportunities by elimination or control of undesirable species in identified waters.

Management techniques are geared toward maintenance of healthy fish populations by monitoring the sizes of fish in the existing population and effort expended on a population rather than measuring the actual harvest by anglers.

Catchable Trout Surveys

Through federal Sport Fish Restoration Act match funding, the Department monitors the recreational angling effort and success at lakes and reservoirs statewide through the use of reward tagging surveys.

In 2006, the Department evaluated 17 reservoirs for angler effort and success, stocking 177,559 rainbow trout and tagging 2,907 trout for later identification. Anglers returned 223 tags in 2006 for an overall return rate of 8%. Return rates of fish to the creel varied between waters from a low of 0% to a high of 20%.

In 2007, the Department evaluated six reservoirs for angler success, where 108,813 rainbow trout were stocked and 1,751 trout were tagged with $10 dollar reward tags. Anglers returned 152 tags in 2007 for an overall return rate of 9%. Tag return rates varied between the reservoirs from a low of 1% to a high of 15%.

In 2006 and 2007, the Department conducted access point angler surveys on 19 different lakes/reservoirs. Sixteen of the surveyed lakes/reservoirs had reported catches of salmonid species and 13 waters had reported angler catches of non-native warm water fish species. All the angler surveys catch categories were classified as salmonids, black bass, and other fish species.

A total of 6,377 fish were caught, of which 64% was identified as salmonid species and 36% were identified as non-native warm water fish species. Anglers reported keeping 37% of all salmonids caught. Black bass was the most common non-native warm water species in angler catches, comprising 66% of the catch. Catch and release is a strong ethic with black bass anglers. Anglers reported the harvest of only 15% of all non-native warm water species caught.

Warm Water Species

Nationwide, warm water fisheries are by far the most popular form of inland angling recreation, and California has over 200 man-made reservoirs that support warm water fish species. Common warm water species include the black bass (largemouth, smallmouth, and spotted), catfish (channel, white, bullhead), crappie (black and white), and sunfishes (various species). Black bass is the most popular species with recreational anglers nationwide. In 2006, 1,820 permits for fishing contests were issued, (as mandated by Section 230, Title 14, of the California Code of Regulations), of which 92% were for contests targeting black bass. Anglers reported catching 113,206 black bass weighing a total of 252,402 pounds. A as a condition of the contest permit for black bass, all fish caught are to be released alive, therefore minimal harvest of black bass is realized from permitted fishing contests.

In 2007, 1,945 fishing contest permits were issued of which 91% were for contests targeting black bass. Required fishing contest reports are still pending so summary results are not available at this time.

Inland Salmon

In an effort to provide diverse recreational angling opportunities in California's lakes and reservoirs, the Department developed the Inland Salmon Program. Designed as a "put-and-grow" fishery, harvest of fish is of prime importance. Angler surveys and fish growth are used to determine stocking levels so that fish grow to an acceptable size. Kokanee are stocked in 24 reservoirs and Chinook salmon in 13 reservoirs.

In 2006 angler surveys were conducted on Bullard's Bar Reservoir and Lake Pardee. A total of 44 days were surveyed and 432 anglers interviewed. Anglers reported fishing 1,753.75 hours and caught 478 kokanee salmon, keeping 339.

Angler surveys were conducted on 45 days at Folsom Lake in 2006 and 244 anglers were interviewed. Anglers reported fishing 1,089.75 hours and caught 25 Chinook salmon, keeping 18.

Angler surveys were conducted on 48 days at Lake Oroville in 2006. A total of 171 anglers were surveyed and they reported fishing a total of 746.5 hours, catching 23 coho salmon and keeping 15.

In 2007, angler surveys were conducted on Bullard's Bar Reservoir, Lake Pardee, Folsom Lake, and Lake Oroville. Several of these surveys are still in progress and data has yet to be entered and summarized.

These programs are done in partial partnership with public fishing groups, who provide funding by contractual agreements, matched by federal SFRA funds in FY 2006-07. In FY 2007-08, the U.S. Fish and Wildlife Service announced that funding for fish to be planted would be cut from the grant, so the California Inland Fisheries Foundation, Inc., and Kokanee Power have increased their commitment to the grant. Because these are reimbursable contracts, the actual cost is as yet unknown.

Central Valley Angler Survey

The Central Valley Angler Survey is the primary angler survey for anadromous fishes in the Central Valley Basin. However, it is also coordinating with the existing striped bass and sturgeon survey being conducted in the Sacramento-San Joaquin Delta to achieve greater geographic coverage while meeting co-equal project objectives.

The Central Valley Angler Survey also provides an estimate of Chinook salmon harvest in the Central Valley recreational fishery. This estimate complements Chinook salmon harvest estimates for California ocean commercial and recreational fisheries generated by the Ocean Salmon Project. Combined, these estimates are used by the Pacific Fishery Management Council to forecast Chinook salmon harvest quotas in ocean waters off the coasts of Washington, Oregon, and California. The inland recreational harvest component, for Chinook salmon of both hatchery and wild origin, has been lacking throughout most of the management history of Chinook salmon fisheries supported by the Central Valley. The Central Valley Angler Survey fills this essential information gap and the survey results for November 2006 to June 2007 are shown below.

Chinook Salmon Fishery

The angler survey covered much of the fall-run Chinook salmon fishery on the lower Sacramento River from Rio Vista to Knights Landing, the tail end of the fall- / late-fall-run Chinook salmon fishery and the June spring-run Chinook salmon fishery on the lower American River, and the first three months of the spring-run Chinook salmon fishery on the Feather River. An estimated total of 67,307 angler hours targeted Chinook salmon, resulting in an estimated Chinook salmon harvest of 1,540 fish, and the catch-and-release of 1,321 Chinook salmon. About 54% of Chinook salmon caught were harvested. The overall catch-per-unit-effort (CPUE) for Chinook salmon was 0.04 / hr.

Steelhead Fishery

Essentially all (> 99.9%) of the sport angling effort estimated for steelhead during the current reporting period was expended on the lower American and Feather rivers. An estimated total of 57,527 angler hours targeted steelhead, resulting in an estimated harvest of 638 fish, and a release of 5,885 fish. Thus, only about 10% of steelhead caught was harvested. While only an estimated 6 angler-hours of effort targeted steelhead on the Sacramento River from Rio Vista to Hamilton City, an estimated 132 steelhead were harvested and 265 were caught and released within the four survey sections comprising this river reach. Presumably, many of these were captured by anglers targeting other species. The overall CPUE for steelhead was 0.11 / hour.

Rainbow Trout Fishery (Central Valley)

Relatively little angling effort, an estimated 2,190 hours, was directed toward rainbow trout. All harvested fish reported as rainbow trout within the survey sections covered were recorded as steelhead, given the strongly anadromous life history of the species in the lower Sacramento River system. Recognized resident rainbow trout fisheries on the upper Sacramento and Yuba rivers were not surveyed during the current reporting period, but are forthcoming during the 2007-08 project year.

Striped Bass Fishery

The angler survey work conducted captured the heart of the striped bass fishery in the Sacramento River system. An estimated total of 574,681 angler hours targeted striped bass. About 86% of that effort occurred on the Sacramento River from Rio Vista to Hamilton City, 10% on the Feather River, and 4% on the lower American River. Total angler effort resulted in an estimated striped bass harvest of 24,627 fish, and a catch-and-release of 65,541 fish. About 27% of striped bass caught were harvested. The overall CPUE for striped bass was 0.16 / hr.

Sturgeon Fishery

An estimated total of 110,238 angler hours targeted sturgeon, and all of this effort occurred on the main stem Sacramento River, from Rio Vista to Hamilton City. The fishery resulted in an estimated harvest of 520 sturgeon, and the catch-and-release of 298 sturgeon. The harvest rate was about 64% of sturgeon caught by anglers. The overall CPUE for sturgeon was very low: < 0.01 / hr.

American Shad Fishery

With the exclusion of the Yuba River, much of the Central Valley American shad fishery was surveyed. An estimated total of 105,036 angler hours targeted American shad. About 70% of this effort occurred on the Sacramento River from Rio Vista to Hamilton City, 22% on the lower American River, and 8% on the Feather River. This effort resulted in an estimated harvest of 36,410 shad, and the catch-and-release of 29,741 shad. The harvest rate for American shad was about 55% of those caught by anglers. The American shad fishery was very successful as reflected in an overall CPUE of 0.63 / hr, the highest catch rate among the fisheries monitored in the angler survey.

Splittail Fishery

About 88% of the splittail fishery surveyed occurred on the lower Sacramento River from Rio Vista to Knight's Landing. The remaining 12% was on the Sacramento River from Knights Landing to Colusa and on the Feather River. At an estimated total effort of 10,404 angler hours, the splittail fishery was the second smallest fishery targeted in the angler survey. But with an estimated harvest of 2,442 splittail and a catch-and-release of only 200 splittail, this fishery had the highest harvest rate of 92%. The overall CPUE for splittail was 0.25 / hr.

The Central Valley survey is supported by 75% federal SFRA funds matched by 25% Bay Delta Sport Fish Enhancement Stamp funds.

Heritage and Wild Trout Program

The Fish and Game Commission established this program in 1998, by expanding its Wild Trout Policy so that streams or lakes featuring one or more of the State's native trout, and meeting other specific criteria, may be designated as Heritage Trout waters. Heritage Trout waters are a special subset of Wild Trout waters. Therefore, they will be monitored and managed by the Department's Heritage and Wild Trout Program staff. In

addition, the management of designated Heritage Trout waters will be guided by written management plans which identify actions and policies necessary to protect native trout habitats, and maintain or enhance native trout populations. The Heritage Trout Program is a feature of the Wild Trout Program that highlights restoration, education, and angling activities relating specifically to California's native trout.

Surveys and Estimated Populations

Surveys are conducted on various waters annually to monitor trout populations on designated Wild Trout waters, along with evaluating non–designated waters. These surveys are initiated in a phased approach over time for non-designated waters and on various annual cycles for monitoring designated waters.

1. Number and types of surveys

Electrofishing, direct observation, and angler surveys are initiated annually to assess trout population dynamics and angler usage on various waters throughout the state. Survey data and or population estimates are utilized to assess existing angling use and associated effects at the population level. These surveys are also utilized to assess population viability for specific trout species of special concern. Angler survey boxes are maintained annually on 69 waters (***Table 1 on page 118***) across the state. Additional creel surveys are conducted on a small number of waters when more specific angler information is required. This type of angler survey may be initiated based on regulation changes, angler use information, or to assess the angling use prior to Wild Trout designation.

Wild Trout Crew electrofishing Hot Creek in the fall of 2007

The Heritage & Wild Trout Program (HWTP) manages and monitors twenty lakes (2006-07 & 2007-08) and 787.5 miles of streams (2006-07), Total mileage of streams managed under the HWTP .increased in 2007-08 to 812.5 miles. The Statewide Wild Trout crew surveyed 32 waters in 2006-07 (***Table 2 on page 119***) and 39 waters to date in 2007-08 (***Table 3 on page 120***). *These summaries do not include other surveys conducted by Regional Wild Trout staff.*

2. "Harvestable Surplus"

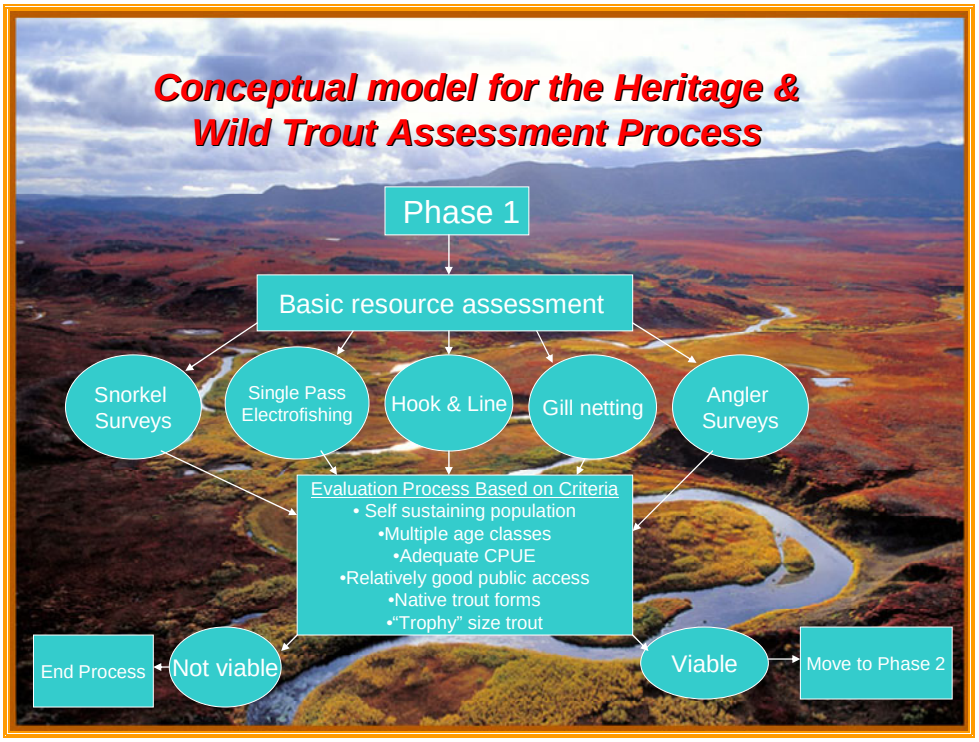
Because not all of the waters in the state that have trout are surveyed, it is not possible to stipulate the absolute number of trout that constitute the population at the statewide level. Further, angler "harvest" information is significantly different than sport hunting "harvest" in that anglers have the ability to release trout after capture. Thus, it is not possible to explicitly define a "harvestable surplus" on an annual basis. Instead, managers use all of the resource assessment information from trends in population estimates and indices, trends in angler catch rates and size classes to develop specific regulatory recommendations (e.g. season lengths and bag limits for harvest regulations) and for other management prescriptions on annual and longer cycles.

On-going Projects in the Department's Heritage & Wild Trout Program

a. **Wild trout research** - Prompted by growing concern over barbless hook regulations, an extensive wild trout research project is being conducted at various waters across California. This project will focus on assessing the efficacy of using barbless hook regulations as a management tool. Data gathered during this project will provide valuable information on associated landing efficiency, injuries, and viability of barbless hook regulations.

Wild Trout Crew assessing barbless vs. barbed hooks 2006

b. **Refinement of Wild Trout Designation Guidelines** – HWTP staff are creating specific criteria and guidelines to help better ensure consistent standards for designating Heritage & Wild Trout waters along with providing a quality angling experience.



Conceptual model for the Phase One approach to Wild Trout Designation

c. **Public Outreach and Information Dissemination** – A cornerstone of the HWTP is providing information to the public and other agencies on wild trout resources including threats to native trout. HWTP staff attends sport shows and give talks to various public angling groups regarding wild trout resources. Program staffs also disseminate brochures that provide overviews on both the Heritage and Wild Trout related projects. The HWTP also maintains the California Heritage Trout Challenge, an angler recognition program that acknowledges anglers the catch six of our native trout. The HWTP also maintains a webpage that provides background on trout species, designated waters, angling opportunities, and other ongoing projects within the HWTP.

Heritage & Wild Trout Program display at the 2007 Flyfishing Show in Pleasanton

d. **Threatened Trout Restoration**

The HWTP provides ongoing monitoring and restoration efforts for trout species of special concern. These efforts include, but are not limited to;

- Genetic analysis of McCloud redband trout.
- Non-native species eradication on the upper Truckee River to protect Lahontan cutthroat trout.
- Non-native species eradication on the south Fork Kern River to protect California golden trout.
- Genetic analysis of California golden trout.
- Monitor extant population of Paiute cutthroat trout.
- Assess and monitor Little Kern golden trout populations.

California golden trout captured and released for genetic analysis by the Wild Trout Crew in 2007

Table 1. List of 69 Waters monitored by the Heritage & Wild Trout Program with angler survey boxes

Big Lake	Nelson Creek	San Simeon Creek	Laurel Lake
Burney Creek	NF American River	SF Kings River	Lower Owens River
Fall River	NF Yuba River	Tuolumne River	McLeod Lake
Grass Valley Cr Resv	Red Lake	Upper Kings River	MF San Joaquin
Hat Creek	Rubicon River	EF San Gabriel River	Roosevelt Lake
Klamath River	Sagehen Creek	Lower Piru Creek	Rush Creek
Manzanita Lake	Truckee River	San Antonio Creek	Slinkard Creek
McCloud River	Upper Truckee River	Sespe Creek	Upper Owens River
Pit River	Yellow Creek	Upper Piru Creek	Lower Yuba River
Squaw Vly Crk	San Gregorio Creek	WF San Gabriel River	
Stone Lagoon	San Lorenzo River	Bear Creek	
Susan River	Arroyo De La Cruz Ck	Big Springs	
Upper Sac River	Big Sur	Cottonwood Creek	
EF Carson River	Carmel River	Crowley Lake	
Heenan Lake	Kern, Sequoia	Deep Creek	
Lt Truckee River	Lake Eleanor	E Walker River	
Martis Lake	Merced River	Green Creek Area	
MF Feather	MF Stanislaus River	Hot Creek	
MF Stony	Marble Fork Kaweah River	Icehouse Canyon Crk	
Milton Lake	San Carpofono Creek	Kirman Lake	

Table 2. Summary of waters surveyed by the Statewide Wild Trout Crew FY 2006-07

Body of Water	*Survey Type*	*Species*	*Total number of fish handled/ observed*	*Estimated Density (fish/mile)*
Yuba River	Direct observation	rainbow trout	137	
Burney Creek	Direct observation	rainbow trout	60	
	Direct observation	brook trout	1	
Hat Creek	Direct observation	rainbow trout	312	
Smithneck Creek	Electrofish	brown trout	75	
South Fork American River	Direct observation	rainbow trout	141	
	Direct observation	brown trout	1	
Alder Creek	Direct observation	rainbow trout	39	
South Fork Kern	Electrofish	golden trout	294	1215.5
	Electrofish	brown trout	401	1620
Brown Meadow Creek	Electrofish	golden trout	102	1901
	Electrofish	brown trout	2	35
Mulkey Creek	Electrofish	golden trout	895	7531.5
Antelope Creek	Electrofish	rainbow trout	5	
	Electrofish	brown trout	133	
North Fork American River	Direct Observation	rainbow trout	272	
East Fork Carson	Direct observation	rainbow trout	73	
	Direct observation	brown trout	1	
South Fork Kings	Electrofish	rainbow trout	193	1916
	Electrofish	brown trout	222	1728.5
	Electrofish	brook trout	248	8552
Mokelumne River	Direct observation	rainbow trout	29	
	Direct observation	brown trout	18	
South Fork American River	Direct observation	rainbow trout	145	
	Direct observation	brown trout	2	
North Fork Silver Fork American River	Electrofish	rainbow trout	12	325
	Electrofish	brown trout	2	81
Lockwood Creek	Direct observation	rainbow trout	462	
Lockwood Creek	Electrofish	rainbow trout	101	1643
Piru Creek	Electrofish	rainbow trout	30	383
Snowy Creek	Direct observation	rainbow trout	9	
Buck Creek	Direct observation	rainbow trout	145	
Caples Creek	Direct observation	rainbow trout	26	
	Direct observation	brook trout	28	
	Direct observation	brown trout	13	
Caples Creek	Resource Assesment	rainbow trout	24	
	Resource Assesment	brown trout	3	
Clark's Fork	Electrofish	rainbow trout	37	347
	Electrofish	brook trout	24	174
Antelope Creek	Resource Assesment	rainbow trout	21	
	Resource Assesment	brown trout	9	
	Resource Assesment	brook trout	2	
Antelope Creek Lake	Resource Assesment	rainbow trout	38	

	Resource Assesment	brown trout	5	
Heenan Lake	Resource Assesment	rainbow trout	1	
	Resource Assesment	Lahontan cutthroat trout	8	
Junction Reservoir	Resource Assesment	rainbow trout	219	
Kern River	Resource Assesment	golden trout	3	
	Resource Assesment	brown trout	8	
Lower Caples Creek	Resource Assesment	rainbow trout	5	
Mulkey Creek	Resource Assesment	golden trout	78	
Rubicon River	Resource Assesment	rainbow trout	19	

Table 3. Summary of waters surveyed by the Statewide Wild Trout Crew FY 2007-08

Body of Water	*Survey Type*	*Species*	*Total number of fish handled/observed*	*Estimated Density (fish/mile)*
Upper Sacramento River	Direct Observation	rainbow trout	8316	
	Resource Assessment	rainbow trout	6	
Hat Creek	Direct observation	rainbow trout	572	
	Direct Observation	brown trout	38	
Fall River	Direct Observation	rainbow trout	18021	
	Direct Observation	brown trout	54	
Moosehead Creek	Electrofish	rainbow trout	64	
McCloud River	Electrofish	rainbow trout	8	
	Electrofish	brook trout	26	
North Arm Rice Creek	Electrofish	rainbow trout	157	1242.5
	Electrofish	brown trout	34	662
Warner Creek	Direct observation	rainbow trout	102	
	Direct Observation	brown trout	12	
	Direct Observation	brook trout	6	
Silver King Creek	Electrofish	Pauite cutthroat trout	507	541
Coyote Creek	Electrofish	Pauite cutthroat trout	166	1083
Little Five Lakes	Resource Assessment	rainbow trout	40	
Nine Lakes	Resource Assessment	rainbow trout	40	
Goethe Lakes	Resource Assessment	golden trout	5	
Lost Lakes	Resource Assessment	golden trout	8	
Upper Golden Trout Lake	Resource Assessment	golden trout	4	
	Resource Assessment	brook trout	7	
Lower Golden Trout Lake	Resource Assessment	golden trout	2	
	Resource Assessment	brook trout	4	
Piute Creek	Resource Assessment	golden trout	175	
Desolation Lake	Resource Assessment	golden trout	2	
Forsaken lake	Resource Assessment	golden trout	4	
	Resource Assessment	brook trout	15	
Humphrey's Lakes	Resource Assessment	brook trout	22	
Tomahawk Lake	Resource Assessment	brook trout	17	
Star Lake	Resource Assessment	golden trout	18	
Puppet Lake	Resource Assessment	golden trout	2	

Alsace Lake	Resource Assessment	golden trout	3	
Paris Lake	Resource Assessment	golden trout	11	
Granite Park Lake	Resource Assessment	golden trout	6	
Pilot Creek	Electrofish	rainbow trout	129	
	Electrofish	brown trout	101	
Caples Creek	Electrofish	rainbow trout	3	
	Electrofish	brown trout	14	
	Electrofish	brook trout	26	
	Direct Observation	rainbow trout	57	
	Direct Observation	brown trout	38	
Upper Truckee River	Electrofish	Lahontan cutthroat trout	3022	
West Fork Carson River	Electrofish	rainbow trout	25	473
	Electrofish	brook trout	765	4451
Deep Creek	Electrofish	rainbow trout	631	3616
Hot Creek	Electrofish	rainbow trout	276	2551
	Electrofish	brown trout	1007	9476
Middle Fork Stanislaus River	Electrofish	rainbow trout	962	19639
	Electrofish	brown trout	297	6196
East Walker River	Electrofish	rainbow trout	40	282
	Electrofish	brown trout	860	4655
Carson River	Resource Assessment	rainbow trout	42	
Junction Reservoir	Resource Assessment	rainbow trout	25	
Pauley Creek	Resource Assessment	rainbow trout	20	
Rubicon River	Resource Assessment	rainbow trout	85	
	Resource Assessment	brown trout	4	
Silver King Creek	Resource Assessment	rainbow trout	279	
Stanislaus River	Resource Assessment	rainbow trout	59	
	Resource Assessment	brown trout	1	

High Mountain Lakes

Management of High Mountain Lakes (HML) recreational fisheries and native faunal assemblages requires current assessments of the distributions of fish and amphibians, and their habitats. The Department's HML project has surveyed approximately 11,000 Sierra Nevada and Northern California high elevation lakes and ponds since 2001, including over 1,400 lakes in 2007. Survey results are incorporated into aquatic biodiversity management plans that balance the Department's mission to manage for public use and enjoyment of these majestic resources through recreational angling, and our responsibility to protect and maintain all of California's native animals.

Some native species do not co-exist well with introduced trout (e.g. mountain yellow-legged frogs), and management plans identify waters where fisheries will no longer be supported. It is essential to maintain an in-depth and current understanding of species distributions and associated site-specific habitat features, distributions of fish barriers to delineate potential future fish re-distribution, fish and amphibian population status, and the status of other habitat or biologically limiting factors (e.g. disease, pollutants, and

water quality) so that management that is biologically, physically, and politically reasonable can be identified and implemented.

To date, the Department has completed initial management planning for all HML in the Eastern Sierra and five management units in the Northern Sierra. Many additional plans are being developed. We continue to learn more about HML fish and amphibian resources and the pressures of new diseases and pollutants. Thus management plans are dynamic and will adapt in response to our continued surveys and research findings.

Bay-Delta Sport Fishing Enhancement Stamp Program

A Bay-Delta Sport Fishing Enhancement Stamp (BDSFES) is required for anglers to fish the San Francisco Bay inside the Golden Gate Bridge, the Delta and the Sacramento and San Joaquin rivers, including major tributaries, below the most downstream dam. Fees received by the Department are deposited in a separate account in the Fish and Game Preservation Fund. The BDSFES Program has authority to spend $1 million a year on projects that benefit sport fish populations, sport fishing opportunities, and anglers within the stamp's geographic range. To date, the BDSFES Program has spent approximately $1 million on sport fishing-related projects. The BDSFES will remain in effect until January 1, 2009 unless reauthorized by the Legislature.

Importation of Live Aquatic Plants and Animals

The Department has the authority to regulate the importation of live aquatic plants and animals. Applicants obtain importation permit applications from regional headquarters or field offices or from FB. Completed applications are submitted to FB. The permit application is reviewed by the FB and the permit is either issued or the application is disapproved in writing.

The following importations are exempt from the Department permit requirements:

1. Live shellfish imported for food which will not be placed into State waters or held in waters which are discharged to State waters;
2. Live tropical species held entirely in indoor closed systems and used only for ornamental/hobby purposes (not for food or for bait);
3. Brine shrimp.

Permits are required for crayfish or any other live aquatic species if they are imported for bait. They are required for all live fin fish imported for food. They are required for all species destined for stocking into waters of the State.

Information Systems Support

This program has the responsibility to provide direct technical support to the various Branch sections and units; function as a communication link between statewide Fisheries Programs and the Department's Data Analysis and Information Technology Branches to ensure statewide continuity and efficiency; and also provide web hosting services for the Fish Branch web page.

-- Program 30 --

MANAGEMENT OF DEPARTMENT LANDS AND FACILITIES

This program manages Department-owned or leased lands and facilities, including hatcheries, wildlife areas, ecological reserves, fish and wildlife laboratories, and public access areas, to contribute to the conservation, protection, and management of fish and wildlife.

The major activities of this Program include:

30.10 -- Lands

30.20 -- Hatcheries and Fish Planting Facilities

30.10 MANAGING DEPARTMENT LANDS AND FACILITIES

PROGRAM DESCRIPTION

The Department of Fish and Game (Department) owns and manages more than one million acres of land for conservation of important species and habitats. These lands are critical to the survival of sensitive species and those of great economic importance, such as native salmonids, waterfowl, large ungulates, and offshore fisheries. These lands also provide important opportunities for the public to hunt, fish, watch wildlife and learn about nature.

The Department currently owns or administers 716 properties statewide, totaling 1,082,640 acres (606,306 owned and 476,335 administered). The 716 properties include 110 wildlife areas, 123 ecological reserves, 11 marine reserves, 233 undesignated lands, 180 public access areas, 21 fish hatcheries, and 38 miscellaneous lands. The lands Inventory website location is at: http://www.Department.ca.gov/lands/factsheet.html.

With the exception of the Department's 21 fish hatcheries managed, which are managed by the Fisheries Branch[1], all Department lands are managed by the statewide Lands Program.

[1] Department's 21 hatcheries are not addressed in this report.

The statewide Department Lands Program (Program) is charged with the management of over one million acres of land on 695 properties located throughout California. The Program consists of 95 regional and eight headquarters staff responsible for all aspects of the program, including land acquisition, species and habitat management, property and infrastructure maintenance, and providing opportunities to the public for activities such as hunting, fishing, wildlife viewing, education and research.

The Wildlife Conservation Law of 1947 established the Wildlife Conservation Board (WCB) within the Department for the acquisition of lands for recreational and conservation purposes. The Department works with the WCB to prioritize lands for acquisition that meet various statutory requirements for species and habitat conservation and public recreation. Once purchased by the WCB, these lands are managed by the Department.

The initial phases of management involve securing the properties and assessing them to determine species and habitat management needs, infrastructure needs, and recreational opportunities in the development of a management plan. If it is necessary to regulate access and public use on Wildlife Areas and Ecological Reserves for the protection of important species and habitats, the Department will propose regulations for adoption by the Fish and Game Commission for this purpose.

Wildlife areas are established to conserve wildlife and allow public recreational uses. Ecological reserves are established for the protection of threatened and endangered species and special habitats, for the public to observe native flora and fauna, and for scientific research. Public uses are allowed on wildlife areas and ecological reserves when they are compatible with the purposes for which the properties were acquired, and with conservation of important species and habitats on the properties.

Management of Department lands varies depending on the types of habitat and species present, and the levels and types of public use that occur. Generally, Department lands can be categorized as those that are intensively managed, and those that are not. Intensively managed lands are those with permanent full-time and temporary staff onsite with operating budgets specific to that site. These lands are usually managed for controlled public use, with major development of habitat and facilities, and feature wetland habitats as a significant component of the property. Nineteen of the Department's properties are in this category. Lands not falling within this category are less intensively managed; that is without staff and major habitat development and public use programs. The Department's remaining 671 properties (excluding hatcheries) fall into this category.

While Department lands are typically purchased for more than one purpose, whether for the conservation of one or many species, habitats or to provide public use opportunity, the most common primary purposes for which the Department acquires land are for

bighorn sheep habitat, threatened and endangered species, deer habitat and interior wetlands as noted in the following table:

Acreage Administered By Primary Management Purpose[2]	Owned in Fee Title	Administered Through MOU's, Leases, Easements, Management Agreements	TOTAL[3]
Bighorn Sheep Habitat	32,006	235,220	267,227
Coastal Wetland Habitat	55,894	23,621	79,515
Deer Habitat	135,754	33,825	169,579
Department Facilities	403	729	1,132
Fisheries Habitat	1,753	474	2,227
Grasslands/Uplands Habitat	20,282	11,678	31,960
Interior Wetland Habitat	120,465	32,889	153,354
Marine Habitat	0	39,192	39,192
Property Rights Only	1	0	1
Public Access	8,062	4,549	12,611
Right of Way Easements	0	0	0
Riparian Habitat	38,971	14,155	53,126
Special Habitats	45,409	42,251	87,661
T&E Species Habitat	147,305	37,750	185,056
TOTAL	**606,306**	**476,335**	**1,082,640**

Management activities focus on assessing, restoring, maintaining, and improving habitats for fish, wildlife, and native plants. These activities are accomplished with species and habitat surveys and monitoring, and habitat management with irrigation, disking, burning, grazing, planting of native species, removal of invasive species, and/or installation of important structural habitat elements. Maintenance activities keep facilities in good condition for effective management; the safety and enjoyment of employees and the public; and preservation of valuable public assets. Maintenance activities include fence building and repair, gate installation, road grading, facilities repair and maintenance, garbage collection, sign replacement, habitat restoration, water management, and levee construction and repair. Facilities development consists of assessing needs for planning, and constructing facilities for employees and the public, such as housing, office space, workshops, visitor centers, restrooms, kiosks, signs, roads, trails, and related infrastructure.

[2] This is an overview of Department-managed or owned lands, not a detailed report. Many properties have multiple management objectives; only the primary purpose is listed here.

[3] Discrepancies in total acreage between tables and columns are due to rounding of numbers

In addition to management, maintenance and facilities development activities, the Department is responsible to other agencies for the payment of fees and assessments related to the management of properties. The Department is responsible for tracking these fees, determining their validity, and paying them when funds are available.

In addition to the lands it owns and administers, the Department also enters into management agreements on private lands for the conservation of wetlands and other important habitats. Through various private land conservation programs, such as the Comprehensive Wetland Habitat Program and the Landowner Incentive Program, the Department works with private landowners to encourage habitat enhancement and restoration for the benefit of the species that depend on these important habitats.

One of the biggest factors impacting the Program's ability to comprehensively manage departmental properties is the lack of an integrated automated system. Manual tracking systems for property inventory, facilities maintenance, uses/activities, costs and revenue are cumbersome and do not allow for efficient reporting. While Program staff maintains accurate records, the inability to systematically schedule maintenance, deferred maintenance and capital outlay projects results in the delay of necessary work, often at increased costs. Often times, critical work is not performed for this reason.

Additionally, the lack of an integrated system impacts the Department's ability to comprehensively evaluate and prioritize infrastructure issues, resulting in significant facilities management concerns, which are further enumerated in Section 5 – Five-year Infrastructure Plan.

STATUTORY MANDATES

Mandates governing activities within the Lands Program include:

Legal Citations and Authorities

Authority	Section Number or Other Reference
Fish and Game Code	Section 703(a) - Department General Policies
Fish and Game Code	Section 1525-1528 – Wildlife Management Areas and Game Farms
Fish and Game Code	Section 1530 – Bird Taking from Wildlife Management Areas
Fish and Game Code	Section 1580-1584 – Ecological Reserves

KEY MEASURABLE OBJECTIVES

The Department's primary objective for the management of its lands in FYs 2006-07 and 2007-08 is to manage properties for the purposes for which they were acquired to sustain healthy habitats and wildlife populations, and to provide compatible public use opportunities.

Approximately $15.3 million in FY 2006-07 and $16.5 million in FY 2007-08 will be devoted to management of lands by Department field staff. The majority of these funds (approximately 80%) will be allocated to the 19 staffed wildlife areas and ecological reserves, with the remaining 20% allocated to unstaffed wildlife areas and ecological reserves. Approximately $2.2 million will be allocated to the development and management of private land conservation programs and $1.1 million will be allocated to program coordination and administration.

These funds will support the following projects and activities:

- Management of over 61,000 acres of wetlands to benefit resident and migratory waterfowl, shorebirds, and a suite of upland and special status species
- Management of 606,306 acres of special habitats and habitat for sensitive species
- Habitat management and maintenance activities on wildlife areas and ecological reserves
- Approximately 450 survey and monitoring efforts of important species and habitats on wildlife areas and ecological reserves to include mammals, birds, amphibians, reptiles, fish, native plants, vegetation, invasive species, water quality and environmental variables affecting species and habitats
- Eradication or reduction of 21 invasive species on a total of 14,000 acres on 33 wildlife areas and ecological reserves to improve habitat for important species
- Implementation of Best Management Practices on 15 wildlife areas and ecological reserves for the control of mosquitoes and prevention of West Nile Virus
- Completion of 14 Deferred Maintenance projects in FY 2006-07 with nine additional projects in FY 2007-08 to maintain Department facilities and protect worker and public health and safety
- Completion of management plans for 19 properties in FY 2006-07 and six properties in FY 2007-08 with four additional plans initiated in FY 2007-08
- Operation of state and federal waterfowl hunt programs to provide an estimated 102,250 visitor days annually for waterfowl and upland game hunting
- Provision of an estimated 3,350,000 visitor days for educational activities and/or wildlife viewing annually
- Development of regulations for recently acquired wildlife areas and ecological reserves, and updates of regulations for existing reserves in FY 2006-07 with adoption by the Fish and Game Commission in FY 2007-08
- Preparation of an estimated 25 proposals to the WCB for acquisition of important lands for the conservation of important species and habitats
- Management and monitoring of agreements with private landowners for the conservation of 41,000 acres of wildlife habitat

Additionally, the Program will continue exploring the development and implementation of a comprehensive automated management system as noted previously. The *Maximo* system which is currently successfully utilized by two other departments, including sister-agency California Department of Parks and Recreation, will be reviewed for potential use by this Department.

Visitor Use Days for Ecological Reserves, Wildlife Areas and Undesignated Lands

The Department tracks visitor use only on staffed Wildlife Areas and Ecological Reserves. The department manages 19 staffed Wildlife Areas and 2 staffed Ecological Reserves. Visitor use on staffed Wildlife Areas is tracked during harvest seasons, while the staffed Ecological Reserves track visitors to their visitor centers and the reserves themselves. Although the numbers of visitors are not specifically known for the other 571 properties managed by the Department, it is likely that thousands more visitors come to unstaffed Wildlife Areas, Ecological Reserves and Undesignated Lands annually.

Total Estimated Visitation for All Department Lands: 4,269,566

Staffed Wildlife Areas:

There are 18 staffed wildlife areas with and estimated 1,071,716 ***** visitors, which includes 681,466 hunters, 253,850 anglers, and 136,400 other visitors annually (Waterfowl Hunt Results Comparison Report and Area estimates derived from visitor registration, vehicle counts, surveys and staff observations)

_____

**** The actual number is probably much greater, given that the many of the other uses that occur on our staffed Wildlife Areas, such as fishing, hiking, dog training, school field trips, photography, wildlife watching, nature study and special events.***

Staffed Ecological Reserves:

The Department has two staffed Ecological Reserves, Upper Newport Bay (UNBER) and Elkhorn Slough Ecological Reserve (ESER). An estimates of 934,764****** annual visitors for the two Ecological Reserves are 873,964 at UNBER and 50,000 at ESER.

_____

***** The actual number is greater. One estimate (UNBER) used to arrive at this figure is nine years old, and visitation has increased substantially since then. It is estimated that current visitation levels would bring the overall annual visitation estimate to 1,060,800 for the two staffed ecological reserves.***

Unstaffed Ecological Reserves:

641,000******* visitors annually (Visitation Estimates for Santa Rosa Plateau, Carrizo Plains and Bolsa Chica, three of 8 unstaffed reserves with visitor centers operated by Department partners) The Department manages over 120 unstaffed Ecological Reserves.

_____

******The actual number is greater. Incorporation of data from the remaining 5 unstaffed reserves with visitors centers would increase this estimate.***

Unstaffed Wildlife Areas and unstaffed undesignated lands:

A statewide survey of lands owned, leased or otherwise administered by the Department was conducted in 1995 (last year a survey was completed). The survey was conducted by local Wardens, Biologists and/or other Department employees familiar with the sites. The survey estimated public use. These surveys estimated 237,700 user days for 94 unstaffed wildlife areas. Undesignated lands were also surveyed, these included public access areas, fishing accesses, fishing piers, and lands not classified as wildlife areas or ecological reserves. The estimated public use for these undesignated lands was 1,258,350 user days. The Department manages over 450 unstaffed Wildlife Areas and undesignated lands.

TYPE OF AREA	ESTIMATED USER DAYS
Staffed Wildlife Areas	1,071,716
Unstaffed Wildlife Areas	237,700
Staffed Ecological Reserves	1,060,800
Unstaffed Ecological Reserves	641,000
Undesignated Lands	1,258,350
TOTAL	**4,269,566**

Acres of Irrigated Habitat on Ecological Reserves, Wildlife Areas and Undesignated Lands

Wildlife Areas:	56,115 Acres
Ecological Reserves:	766 Acres
Undesignated Lands:	4,911 Acres

Number of Completed Land Management Plans for Ecological Reserves and Wildlife Areas

Region	Ecological Reserves		Wildlife Areas	
	Complete	In Progress	Complete	In Progress
Northern Region	0	1	1	7
North Central Region	0	2	2	7
Bay Delta Region	2	1	3	2
Central Region	1	10	1	6
South Coast Region	1	5	0	2
Inland Deserts Region	0	5	0	5
Totals	**4**	**24**	**7**	**29**

Total Plans Completed: 11
Total Plans in Progress: 53

Grand Total Plans Completed or In Progress: 64

Numbers and Acres of Ecological Reserves, Wildlife Areas & Undesignated Lands

Region	Ecological Reserves		Wildlife Areas		Undesignated Properties		Total*	
	Properties	Acres	Properties	Acres	Properties	Acres	Properties	Acres
1	13	15,008	33	133,681	12	9,696	58	158,386
2	12	9,895	26	102,363	14	12,761	52	125,019
3	24	20,043	19	97,985	13	3,674	56	121,702
4	24	68,496	16	43,291	17	11,119	57	122,906
5	30	25,875	2	19,354	6	3,147	38	48,376
6	19	35,511	14	303,724	15	21,032	48	360,267
7	11**	38,347	0	0	0	0	11	38,347
Total	**133**	**213,175**	**110**	**700,398**	**77**	**61,429***	**320**	**974,929**

Does not include 5,189 acres of Public Access Areas owned and/or managed by Department
****Does not include 120+/- Offshore Rocks & Pinnacles.***

Number of Conservation Easements & Acreage of Conservation Easements Monitored

The number of easements currently held by the Department is reflected in the following table, by Region:

Department Region	# of Conservation Easements
1 - Northern Region	28
2 - North Central Region	75
3 – Bay Delta Region	106
4 - Central Region	23
5 - South Coast Region	26
6 - Inland Deserts Region	17
Total	**275**

Number of Conservation Easements and Acreage of Conservation Easements Monitored

Conservation Easements		
Region	**Properties**	**Acres**
1	17	28,021
2	41	51,986
3	44	15,043
4	21	11,786
5	23	6,728
6	12	3,498
7	0	0
Total	**158**	**117,062**

30.20 HATCHERIES AND FISH PLANTING FACILITIES

The management activities of **Program 30 - Element 20 Hatcheries and Fish Planting Facilities** coordinating production of fish and their eggs for recreational use, for mitigation for lost habitat due to dam construction, for enhancement of commercial or recreational fisheries, and for recovery of listed species or those of special concern. This includes caring for eggs and fish; feeding, inventory, marking or treating fish for disease; pond cleaning; transporting fish for transfer; taking and shipping eggs; and culturing, selecting and transferring broodstock.

This program also coordinates closely with Fisheries Branch's Fisheries Management Program to ensure that hatchery practices complement recovery of listed species

Fish stocking is generally viewed as one of many fishery management tools. Hatchery produced fish are used to introduce species into new and existing waters, supply year-classes when natural reproduction is absent or has failed, or to produce or maintain a recreational or commercial fishery.

PROGRAM DESCRIPTION

The primary functions of the Hatcheries and Fish Planting Facilities Program are to:

1. Respond to statewide fishery management needs and direction;
2. Coordinate statewide activities, contracts, permits, and regulations dealing with the production and distribution of fish for Department fish hatcheries;
3. Manage and implement the Hatchery and Inland Fisheries Fund;
4. Coordinate and review cooperative rearing contracts and activities;
5. Coordinate with private aquaculture and private stocking; and
6. Coordinate statewide stock transportation.

STATUTORY MANDATES

LEGAL CITATIONS AND AUTHORITIES

Authority	Section Number or Other Reference
Fish and Game Code	Section 703 Commission Policies for Department Conduct
Fish and Game Code Fish and Game Code	Sections 1170-1175 Private Nonprofit Hatcheries Sections 1200-1206 Cooperative Salmon and Steelhead Rearing Facilities
Fish and Game Code	Sections 6400-6403 Fish Planting and Propagation
Fish and Game Code	Section 13007 Hatchery and Inland Fisheries Fund
Fish and Game Code	Appendix Fish and Game Commission Policies

FY 2006-07

Table 1: FY 2006-07 Trout Production and Planting Cost Summary

ACCOUNT	POUNDS	COST (DIRECT)	$/lb
American River Hatchery	384,110	$876,124	$2.28
Crystal Lake Hatchery	563,914	$871,567	$1.55
Darrah Springs Hatchery	357,057	$950,811	$2.66
Feather River Hatchery	48,097		
Fillmore Hatchery	386,437	$839,694	$2.17
Fish Springs Hatchery	363,004	$805,374	$2.22
Hot Creek Hatchery	290,791	$1,234,124	$4.24
Kern River Planting Base	0	$159,592	$0.00
Moccasin Creek Hatchery	299,149	$698,699	$2.34
Mojave River Hatchery	391,497	$1,006,615	$2.57
Mt. Shasta Hatchery	78,755	$445,806	$5.66
Mt. Whitney Hatchery	126,993	$798,455	$6.29
San Joaquin Hatchery	410,252	$866,253	$2.11
Silverado Fisheries Planting Base/Quarantine	7,605	$496,500	$65.29
Reg. 1 Hatchery Sup. (50%)		$91,484.95	
Reg. 2 Hatchery Sup. (25%)		$32,650.89	
Reg. 3 Hatchery Sup.		$0.00	
Reg. 4 Hatchery Sup. (75%)		$50,791.70	
Reg. 5/6 Hatchery Sup. (100%)		$186,503	
LFB State Hatchery Coordination & Support (67%)		$0.00	
Administrative Overhead Included		$2,565,274.89	
Program Direct Cost Total w/egg costs	**3,707,661**	**$12,976,318**	**$3.50**

Note: 1) Kern River and Silverado are Fish Planting Bases.
2) Mt. Shasta, Hot Creek, and Mt Whitney are Major Broodstock Hatcheries
3) Crystal Lake minor broodstock hatchery.
4) Darrah Springs minor broodstock hatchery and transfers 1/2 of the production to SFB.
5) San Joaquin transfers all Kern River Fish.
6) Fillmore, Fish Springs and Mojave River are pumped facilities.

PROGRAM OUTCOMES

Hatchery and Inland Fisheries Fund

Assembly Bill 7 (Cogdill) was passed in 2006 and chaptered in Fish and Game Code Section 13007. This legislation placed new mandates on the Department trout hatcheries, and was formally enacted on July 1, 2007. Specifically, by 2007 the Department hatcheries will be required to produce 2.25 lbs of trout per sport fishing license sold, with a minimum of 1.75 lbs per license being of catchable size. The information supplied below pre-dates the mandates in AB 7, but establishes production data for the year immediately preceding AB 7 implementation.

Trout Hatcheries

Trout production data for FY 2006-07 is presented in ***Table 2***: **Catchable Trout Stocked by Facility, FY 2006-07**. A total of 3.7 million lbs (6.76 million fish) of trout were planted into State waters for recreational angling. The average weight of fish was 1.76 fish/lb (0.54 lbs/fish). The cost of production by hatchery ranged from a high of $6.29/lb to a low of $1.55/lb. Statewide this averaged to $3.50/lb of trout produced and planted (***Table 1***: **FY 2006-07 Trout Production and Planting Cost Summary** *above*). For comparison, the most recent analysis of production cost was $3.02/lb, from FY 2002-03.

The catchable trout produced at the13 Department hatcheries were planted into 323 lakes and 183 streams and rivers (727 miles) throughout California. Additionally 1.0 million (2,000 lbs) of fingerling trout were aerially planted into 303 high mountain lakes (***Table 3.*** **Summary of Aerial Stocking, 2006**).

Creel census data was collected under SFRA Grant F-126-R-1. In a statewide study 21 lakes were surveyed over a 365 day period. A total of 2,489 anglers were contacted. On average anglers fished for 4.5 hours per outing and averaged 0.70 fish caught per hour, for an average of 3.15 fish per outing. This survey included trout, bass and other species.

Salmon and Steelhead Hatcheries.

Fish production goals at anadromous hatcheries are defined in individual hatchery goals and constraints sections of hatchery management plans, and are rooted in the FERC (Federal Energy Regulatory Commission) licensing agreements. A total of 37.6 million salmon and steelhead (1.54 million lbs) were planted in 2006 (***Table 4.*** **Fish Production by Anadromous Hatcheries, 2006**). The species consisted of Chinook salmon-fall run, Chinook salmon-spring run, coho salmon and steelhead.

Table 2. Catchable Trout Stocked by Facility, FY 2006-07

Facility	Catchable trout (lbs)	# of fish	Fish size (fish/lb)
American River	302,537	608,140	2.01
Crystal Lake	492832	865,518	1.76
Darrah Springs	190,207	356,163	1.87
Feather River	48,097	246,226	5.12
Fillmore	378,950	808,528	2.13
Fish Springs	300,766	518,221	1.72
Hot Creek	286,904	549,824	1.92
Kern River	98,025	160,726	1.64
Moccasin Creek	278,078	508,533	1.83
Mojave River	370,305	690,661	1.87
Mt. Shasta	112,512	246,388	2.19
Mt. Whitney/ Black Rock	157,278	297,102	1.89
San Joaquin	300,031	494,382	1.65
Silverado Fisheries Base	248,660	434,914	1.75
Totals	3,565,182	6,785,326	
Average including coho			2.10
Average trout			1.86

Table 3. Summary of Aerial Stocking, 2006

Species	# of sites	# of fish	# of lbs.
Brook trout	6	30,000	120
Brown trout	3	5,000	20
Rainbow trout	227	699,360	1,510
Golden trout	25	86,000	49
Eagle Lake trout	19	83,000	214
Cutthroat trout	23	131,000	104
Totals	303	1,034,360	2,017

Table 4. Fish Production by Anadromous Hatcheries, 2006

Hatchery	Fish planted (lbs)	Fish planted (# of fish)
Feather River	329,089	12,509,031
Iron Gate	176,855	7,253,681
Mad River	113,524	254,168
Merced River	16,314	973,239
Mokelumne River	194,804	6,762,423
Nimbus	145,300	3,457,170
Trinity River	472,760	5,976,955
Warm Springs	86,630	414,021
Totals	**1,535,276**	**37,600,688**

Hatchery Operations Committee

The Hatchery Operations Committee (HOC) consists of the Senior Hatchery Supervisor in the Northern California and North Coast Region (Region 1); the Sacramento Valley and Central Sierra Region (Region 2); the Central Coast Region (Region 3); the San Joaquin Valley and Southern Sierra Region (Region 4); the South Coast Region/Eastern Sierra and Inland Deserts Region (Regions 5 & 6); and a Hatchery Coordinator from LFB.

The HOC meets at least twice each year. The HOC formulates and recommends uniform practices and procedures within the Department fish hatchery system, and acts as an advisory group to the branches.

Major objectives of the HOC are to:

1. Coordinate fish hatchery activities statewide.
2. Oversee Broodstock Programs.
3. Standardize work practices in fish hatcheries.
4. Develop the most capable, progressive, dedicated, work force.
5. Provide the appropriate species, strains, numbers and sizes of healthy fish for the enjoyment of the anglers of California, and to restore and maintain populations as directed.
6. Maintain and improve the infrastructure of the hatchery system, via capital outlay, special repairs, equipment acquisition, and vigorous attention to maintenance.

The HOC will prepare the annual trout and inland salmon production allotments at the January meeting for the year beginning the following January.

Hatchery Operations Program

Currently, the Hatchery Operations Program produces two categories of fish, resident (non-anadromous) trout, and salmon and steelhead trout, which support inland sport and commercial fishing, and the management of native and non-native species.

Major duties of the Hatchery Operations Program are:

1. Conduct daily fish hatchery operations;
2. Coordinate wild fish trapped policies;
    a. All trapped wild fish are to be sorted according to gender and recorded.
3. Coordinate hatchery spawning policies; and
    a. Inland Fisheries - Spawning matrix will be developed according to the HOC and fisheries management programs.
    b. Anadromous Hatcheries - Spawn all species and strains of fish according to the Hatchery Genetic and Management Plan (HGMP) established for their facility.
4. Coordinate fish egg policies for measuring egg take, shipment of eggs, received eggs, importation of eggs, and exportation of eggs.

5. Implement Department policy of a risk-management strategy for fish stocking is proactive in minimizing the spread of the New Zealand mud snail and other invasive species and diseases into and out of hatcheries and allows for determining levels of informed and prudent risk when stocking fish.

The Hatcheries and Screen Shops Unit

The Hatcheries and Screen Shops Unit provides support and coordination for hatcheries through the HOC and for screen shops.

Major objectives of the Hatcheries and Screen Shops Unit are to:

1. Develop capital outlay and special repair projects planning and prioritization.
2. Offer assistance in the development of reimbursement contract agreements.
3. Provide statewide facility budget coordination.
4. Establish fish feed contracts, coordinates payments to fish feed vendors and monitors feed purchases.
5. Produce and distribute fish production and cost reports.
6. Edits and distributes annual hatchery reports.
7. Coordinates fish egg acquisition and transfers with other State, federal, and private agencies.
8. Write specifications for new and replacement equipment and vehicles, and facilitates equipment purchases.
9. Provide coordination for the Classroom Aquaria Program.
10. Provide coordination with HRB on personnel issues, including classification studies, position establishment and filling, and the recruitment and examination of candidates.

-- Program 40 --

LAW ENFORCEMENT

This program serves the public through law enforcement, public safety and hunter education. Law enforcement promotes compliance with laws and regulations protecting fish and wildlife resources; investigates habitat destruction, pollution incidents and illegal commercialization of wildlife. Wardens also serve the public through general law enforcement, mutual aid and homeland security.

PROGRAM DESCRIPTION

The Law Enforcement Division (LED), Program 40, is a significant part of the primary mission and foundation of the Department of Fish and Game (Department). The major activities of this program include Resource Law Enforcement and Public Safety.

Biology combined with enforcement of the regulations promulgated to manage the state's resources is identified through the Public Trust Doctrine as the responsibility of the Department. Game wardens have transitioned from primarily supporting the hunting and angling communities to realizing full obligations to all constituents. Habitat protection, human-wildlife conflict, exotic animal permitting, pollution and spill response/investigation, threatened and endangered species protection, illegal commercialization of native wildlife, homeland security, and public safety are just a fraction of the responsibilities facing wardens today.

Over the years, mandates have considerably increased the LED's scope of responsibility. Every new regulation, either state or federal, mandating the protection of wildlife and habitat resources or the provision of recreational and commercial opportunities, impacts LED's obligations to state resources and citizens. Development projects that impact threatened or endangered species and streambeds all require compliance checks, and violations require in-depth and time consumptive investigations by LED staff. Pollution events and water quality issues occur at alarming rates in state waters, and wardens are the primary investigators for both inland (off-highway) and ocean spills. Many of these mandates are expected to be performed within existing resources, which coupled with the increased pressure from the state's growing population and warden staffing levels, have affected the LED's ability to limit the impact to state resources.

Currently, there are a total of 371 sworn positions. Of this total, 256 are warden positions of which 57 are currently vacant. When he took office, Governor Schwarzenegger directed that state law enforcement positions would not be eliminated; and since then LED has not suffered any further position reductions.

The previous Department Director initiated a reorganization that involved reconfiguring the reporting structure to allow positions to report through their chain of command directly to the Chief of the LED ***(reference Attachment C for a map reflecting the geographic distribution of the Straight-line Deployment Plan)*** and transitioning the enforcement program to the Law Enforcement Division. With this transition, the Chief of the Law Enforcement Division serves as a Deputy Director, thus straight-lining this position's reporting structure directly to the Department's Executive Office.

These steps, while not the complete solution for adequately addressing the needs of the environment and the expectations of the constituents, have resulted in greater flexibility in deploying Wardens and equipment in the field to protect fish and wildlife resources, and allow the LED to operate more strategically and in coordination with the other departmental programs. The budget augmentations authorized by the Governor and the Legislature further enabled the LED to more effectively and efficiently serve state resources.

STATUTORY MANDATES

Legal Citations and Authorities

Authority	Section Number or Other Reference
Fish and Game Code	Section 850-858
Fish and Game Code	Section 1000
Fish and Game Code	Section 1005
Fish and Game Code	Section 1006
Fish and Game Code	Section 1700
Fish and Game Code	Section 1755
Fish and Game Code	Section 1776
Fish and Game Code	Section 1800
Fish and Game Code	Section 1900
Fish and Game Code	Section 1910
Fish and Game Code	Section 1931
Fish and Game Code	Section 2012
Fish and Game Code	Section 2119
Fish and Game Code	Section 2123
Fish and Game Code	Section 2701
Fish and Game Code	Section 2853
Fish and Game Code	Section 3049-3055.1
Fish and Game Code	Section 7702

KEY MEASURABLE OBJECTIVES

Patrol

The additional resources allocated for FY 2006-07 allowed for increased patrols by field wardens hampered by past fiscal restrictions on overtime. Wardens working the newly authorized overtime have contacted close to 250,000 more citizens than in 2005. The total violations for calendar year 2006 were 15,710, which was a noticed increase of approximately 1,500 violations in comparison to the same time last year (***Reference Attachment D*** for a summary of 2006 violations.) This increase is indicative of an increased warden presence to enforce Fish and Game laws. To date, calendar year 2007 violations total more than 9,000.

Additional patrols made possible by authorized overtime, including $1.5 million in 2007-08, and funds for travel focus on Departmental lands to address unauthorized off road vehicle use, illegal camps and other unauthorized activities.

Poaching Details

Limited resources in FY 2005-06 restricted LED activities to a 40-hour workweek with no overtime, and provided little opportunity for travel to implement directed enforcement details. As a result and during this time period, checkpoints -- a primary enforcement method, were significantly limited. Due to 2006-07 and 2007-08 fiscal year budget augmentations funding for overtime, the LED is now able to increase the number of checkpoints, including marine checkpoints, which help identify poaching of state resources already heavily stressed. Additional checkpoint(s) for Chronic Wasting Disease (CWD), a devastating disease that affects deer and elk herds, are expected to help address the 90% non-compliance by hunters returning from out-of-state hunts with restricted deer and elk parts reported last year. An educational effort in conjunction with the Office of Communication, Education and Outreach (OCEO) was in the beginning stages and included the development of a CWD flyer and planning of additional CWD coverage in Department publications. Within the first three months of FY 2006-07, twice the number of checkpoints had been conducted by LED targeting deer and CWD, abalone/marine species, and Lake Davis Northern Pike compliance.

The additional funding is also being used to increase decoy operations (deer and elk decoys set up to catch poachers taking game out-of-season, in closed areas and after hours), direct enforcement details (multiple Game Wardens are directed to a specific area for targeted resource enforcement) and overtime opportunities for these efforts. Thus far, 18 decoy and directed enforcement operations have been conducted, and overtime (10 hours per month) has been allocated to increase warden field presence. Over 800 citations have been issued during these enforcement details and thousands of citizens contacted.

Equipment Purchase

LED is utilizing a portion of augmented funds to purchase necessary equipment they have been unable to attain in the past due to insufficient resources. Some of the aging and operationally inefficient vehicles have been or are being replaced, and computers have been upgraded. Field equipment purchases, such as all-terrain vehicles, digital cameras and recorders, a 22 foot boat, night vision equipment and Global Positioning Systems (GPS) for the marking and locating of areas of interest and investigations/evidence, have already and will continue to increase efficiency in patrols. These efficiencies are expected to occur beyond FY 2006-07 and FY 2007-08.

The Forensic Lab will utilize approximately $250,000 to purchase equipment and pay overtime to lab staff. The new equipment will enhance the Lab's current forensic capabilities, including establishing genetic markers on various species, such as abalone, mountain lion, bears and sturgeon. Lab cases will be processed more quickly and effectively with the new equipment, and with the ability of the scientists to work overtime.

Air Services will utilize approximately $250,000 for maintenance of existing aircraft, as well as towards the purchase of a new Vulcan Air high-winged aircraft. This will ensure the safety and efficiency of the existing fleet, and increase the number and timeliness of surveying operations. The LED and Department attorneys will utilize $50,000 to create and conduct statewide training conferences for District Attorney's on the critical importance and nuances of wildlife and habitat law enforcement, prosecution and regulation support.

Hunter Education

Hunter Education is an important LED function as this training helps reduce the frequency of accidents involving the use of firearms and archery gear while hunting; increases the understanding and support of wildlife management principles and related regulations and laws; improves the hunter's public image by emphasizing responsibilities and sportsmanship in the field; and allows wardens to further their traditional role in Community-Oriented Policing.

In California, the continuing trend of hunters going out-of-state to hunt is a constant challenge. There were 20,768 students who received Hunter Education this past year, and projections indicate that figure will rise to 23,000 this year. There have been a lower percentage of juveniles who take this required hunting safety training, which highlights a shift in demographics. As in other states, Hunter Education, and hunting in general, has to compete with other year-round activities for youth. To help ensure future hunting-related revenues that support Department hunting and management programs, steps will be taken over the next two years to make Hunter Education more accessible and convenient.

The FY 2006-07 funding augmentation is making course expansion possible, that will take the average 10-hour classroom course and make it more accessible by allowing for a four-hour internet/home study class of the "text book" sections. The LED has also instituted an Advanced Hunter Education course to take hunters a step beyond the

basic instruction course. Topics include: Land Navigation, Turkey Hunting Exposition, Wild Pig Clinics, Big Game Clinics, Upland Game Hunting Clinics, and Waterfowl Hunting and Dog Handling Clinics.

Hunter Education statistics for FY 2007-08 can be expected to be consistent with the numbers summarized in the table below.

	2005-06	2006-07
TOTAL NUMBER OF PERSONS TRAINED (Includes those who passed or failed)	23,979	20,768
TOTAL NUMBER VOLUNTEERS PARTICIPATING	850	755
TOTAL NUMERS OF VOLUNTEER HOURS	21,750	16,534
TOTAL NUMBER OF HUNTER EDUCATION CLASSES	2,156	1580
TOTAL NUMBER OF FATAL HUNTING RELATED ACCIDENTS	2	3
TOTAL NUMBER OR NON-FATAL HUNTING RELATED ACCIDENTS	21	12
TOTAL NUMBER HUNTING RELATED ACCIDENTS	23	15
ESTIMATED PUBLIC EVENTS ATTENDED BY HUNTER EDUCATION STAFF**	150	200
ESTIMATED NUMBER INDIVIDUALS EXPOSED TO HUNTER EDUCATION*	250,000	240,000

**** ~30 events a year per four (4) Department Enforcement District = ~120 events statewide X Average event attendance of 2,000 individuals = Estimated Hunter Education exposure each year of 240,000.***
***** Hunter Education Staff includes Full time staff of seven and volunteer staff of approximately 755***
***** Number of public events attended does not include number of classes taught noted above***

Campaign Against Marijuana Propagation

Increased marijuana cultivation on public lands has inserted wardens into the Campaign Against Marijuana Propagation (CAMP) mission over the last two years. Marijuana growth negatively impacts the environment and water quality: poisons, fertilizers and debris are in each area; wildlife is shot and killed, trapped and poisoned; and water is diverted from streams that support all types of wild and plant life, and humans. The water becomes contaminated with diesel and poisons and is either absorbed by the soil at the site of the growth or becomes run-off into waterways, further affecting the ecosystem for many years into the future.

In addition to the increased patrols of public lands, three wardens, selected by their peers in law enforcement for their expertise in environmental crimes and experience in the woods, were on the CAMP Task Force for the three-month growing season during FY 2006-07. LED's participation in CAMP Pilot projects is beneficial but very time intensive. Participation in the program will continue as time and resources allow.

K-9 Program

The LED has developed and is in the process of implementing a K-9 program that will allow wardens to use specially-trained canines for patrol purposes. In addition to

receiving the same basic training as canines in other law enforcement agencies, LED canines will also be trained in both protection and detection with an emphasis on wildlife and habitat. These canines will be trained to detect the invasive and detrimental Quagga mussel, gun powder residue, as well as deer, elk, abalone, bear, pigs, ducks, sturgeon, striped bass and other fish and wildlife species. These trained "K-9 Officers" will provide immeasurable assistance to Wardens in wilderness, urban and marine environments. This fiscal year the goal is to have 12 Warden Officers and canines attend a formalized six-week K-9 Academy where both dog and handler will attain certification.

Training

All LED staff completed the required Standardized Emergency Management System/National Incident Management System training for response to critical incidents. Wardens are an essential asset in disaster response because of their expertise on the water and in the woods. Wardens have proven their importance in these events during recent natural disasters in Texas, Louisiana and Florida. California wardens play the same role for our state and work directly with the Governor's Office of Emergency Services and the Department of Homeland Security. Funding for this training was possible through a grant provided through the Department of Homeland Security.

Regulations

The LED will formalize its role in the rule making process to assist in the revisions and "clean-up" of the Fish and Game Code. In joining the Department's existing regulations review team, LED will help achieve biological goals by ensuring proposed statutes are enforceable. The LED's expanded role in this process will result in broader consideration of resource conservation and protection matters, and more comprehensive and understandable regulations for the benefit of our constituents.

Marine Life Protection Act

LED hired a Captain to coordinate enforcement issues relating to the Marine Life Protection Act. This new Captain works closely with the Resource Agency's Blue Ribbon Task Force, Department Marine Life Protection Act Initiative staff, and other Department staff in the implementation of Marine Protected Areas (MPAs) and in the creation of new MPAs as we move to new study areas.

The LED provided training and purchased equipment to prepare for enforcement in the first set of 29 MPAs established on the central coast of California. The regulations for this study area went into place on September 21, 2007. During the past year, the LED put equipment in place for wardens to begin patrol efforts directed at the 29 new MPAs. The list of equipment purchased includes patrol skiffs, night vision, marine stabilized binoculars, and GPS units. This equipment will be used by existing Department wardens until the LED is able to hire and train new wardens, with marine emphasis, over the next two years. Continued support of overtime and equipment for existing coastal wardens will be provided from the FY 2006-07 funding augmentation, until new wardens are in position to support the MPA network.

-- Program 45 --

COMMUNICATIONS, EDUCATION, AND OUTREACH

This program serves the public through resource conservation education and use activities in the classroom and on public and private lands, community and stakeholder outreach, and the delivery of information and data using a variety of methods including publications, presentations, web applications and media relations.

STATUTORY MANDATES

Legal Citations and Authorities

Authority	Section Number or Other Reference
Fish and Game Code Fish and Game Code	Sections 210-211 Sections 217.5-217.6
Fish and Game Code Fish and Game Code Fish and Game Code	Section 1005 Section 1571 Section 1585
Fish and Game Code Fish and Game Code	Section 1755 Section 2109
Fish and Game Code Fish and Game Code	Section 3863 Section 13103

KEY MEASURABLE OBJECTIVES

Conservation education continued to be a focus for the Department during fiscal year 2006/07. Conservation education takes many forms, including instructional programs, interpretive experiences, environmental awareness events, and information and outreach campaigns. Primary instructional programs for which we have quantified participation information include:

- **Project WILD** (terrestrial and aquatic), a national program that delivers wildlife and habitat curriculum for grades K-12. Our Project WILD program curriculum has been modified and enhanced to meet California Department of Education standards. The Department's conservation education staff member for Project WILD conducts workshops for educators and volunteers who can then deliver the materials in the classroom and/or train additional program participants.

  Participation for FY 2006-07 – 1,971 educators

- **Project Learning Tree** consists of seven, week- long environmental education seminars for teachers, which provides training and materials on watersheds, timberlands and other habitats.

  Participation for FY 2006-07 – 250 teachers in seven workshops

- **Classroom Aquarium Education Project (CAEP)** provides grammar school students curricula and classroom activities on salmonids that are developed by conservation education staff. As part of the educational unit, the class can visit a Department hatchery and obtain through permit eggs that are then raised in a specialized tank in the classroom. Once the fingerlings are viable, the class takes a field trip to the fish's natural waters and releases them.
  Participation for FY 2006-07 – 226 teachers and more than 8,484 students
- **National Archery in the Schools Program (NASP)** promotes environmental awareness and personal discipline through archery. The Department's staff member conducts archery workshops for teachers and volunteers who deliver the program in physical education classes throughout the state.

  Participation for FY 2006-07 – 42 teachers in 5 workshops
- **American River Salmon Festival** is a free admission community event to increase public awareness, understanding, and conservation of the American River and its resources; with an emphasis on King Salmon.

  Participation for FY 2006-07 – 19,000 attendees over two days and 800, 5th grade students at one-day clinic
- **Nature Bowl** is a two-day event for students and educators that includes a competitive element. The program focuses on regional ecology, natural history, environmental issues and conservation.

  Participation for FY 2006-07 – 546, 3rd-6th grade students from 91 schools
- **Catch a Special Thrill (C.A.S.T.) for Kids** provides disabled and/or disadvantaged children a day of boating, fishing, and hands on educational activities. For many of these kids (18 years of age or younger) C.A.S.T. events are their first fishing experience.

  Participation for FY 2006-07 – 50 youth at one event
- **Back Bay Science Center at Upper Newport Bay Ecological Reserve (UNBER)** offers a marine science center that serves teachers, students (K-12 and college), service organizations and members of the community. The UNBER hosts educational seminars, workshops, labs and events.

  Participation for FY 2006-07 – 692 events attended by 33,433 students and Adults

- **Fishing in the City (Urban Fishing Program)** delivers hands-on opportunities that allow urban-area grammar school students to participate in educational clinics followed by a fishing experience at a local pond.

  Participation for FY 2006-07 – Bay Area: 26 events attended by 4,300 youth; SoCal: 24 events for 14,320 youth; NorCal information unavailable

With the exception of the CAEP and Fishing in the City (FIC) programs, each of these programs is staffed with only one Department conservation education specialist. There are four conservation education specialists that deliver CAEP and three specialists for FIC statewide.

The participation numbers are approximate for instructional events and their participants. This does not include all conservation education instructional activities across the state. Currently, the Department does not have a way of tracking this information statewide for all of its conservation education efforts nor can we reasonably determine the number of Californians that have received instruction by Department-trained teachers and community service organizations following our workshops and events. The numbers provided are based on programs that receive federal education monies and are, therefore, tracked individually.

-- Program 50 --

SPILL PREVENTION AND RESPONSE

The objective of the Spill Prevention and Response Program is to prevent damage, minimize environmental impacts, restore, and rehabilitate California's fish and wildlife populations and their habitats from the harmful effects of oil and deleterious material spills in marine waters and inland habitats.

The major activities of this Program include:

50.10 – Prevention

50.20 – Readiness

50.30 – Response

50.40 – Restoration and Remediation

50.50 – Program Support

PROGRAM DESCRIPTION

The Office of Spill Prevention and Response (OSPR) was established in 1990 by the Lempert-Keene-Seastrand Oil Spill Prevention and Response Act (the Act). Government code sections 8574.9 et seq, and sections 8670.1 et seq. established the OSPR organization and designated the Department of Fish and Game (Department) as the lead agency to implement the act. The Administrator of the OSPR, a Chief Deputy Director of the Department has been designated as the lead to direct the Department's policy for the response and cleanup of all significant pollution events statewide.

The Government Code requires the Administrator to ensure that the Department has support personnel available who are fully trained and familiar with oil spill response, containment and cleanup. The primary program goals and objectives are to prevent and respond to oil spills affecting State waters, to protect sensitive environmental areas and ecosystem including estuaries, bays, beaches, and fish and wildlife. These objectives are accomplished through prevention, readiness, response, and restoration.

As both a prevention and response organization, the OSPR has the Department's public trustee responsibilities for protecting, managing, and restoring the State of California's fish, wildlife, and plants. It is one of the few state agencies in the nation that has both major pollution response authority and public trustee authority for wildlife and habitat. This ensures that prevention, preparedness, restoration, and response will provide the best protection for California's natural resources.

STATUTORY MANDATES

Legal Citations and Authorities

Authority	Section Number Other Reference
Fish and Game Code Fish and Game Code	Section 1008 Section 1600
Fish and Game Code	Sections 5650-5656
Fish and Game Code Fish and Game Code	Sections 12015-12017 Sections 13010-13013
Government Code Government Code	Sections 8574.1-8574.10 Sections 8670.1-8670.73
Government Code Government Code Government Code Government Code Government Code	***Section 8670.1-8670.73 – General …..*** Section 8670.37.51 - 8670.37.57 – Certificate of Financial Responsibility Section 8670.38-8670.43.9 – Oils Spill Prevention and Administration Fund Section 8670.53 – Cost Recovery Section 8670.70 - 8670.73 – Environmental Enhancement Fund

PROGRAM DESCRIPTION

Oil Spill Prevention and Readiness

The Office of Spill Prevention and Response (OSPR) provides best achievable protection of California's natural resources by preventing and preparing for spills of oil and other deleterious materials, and through restoring and enhancing affected resources. Staff utilize the most effective measures to ensure preparedness in the event of an oil spill or other deleterious material, including: response training, periodic drills to test response capabilities, coordination of multi-agency programs, implementation of California's oil spill contingency plan, contingency plan requirements for industry, interstate compacts, and establishing rescue and rehabilitation stations for wildlife. Through regular monitoring and inspections OSPR ensures that resources are available for spill response. Working with other agencies, OSPR develops policies for the use of spill response technology, determines the cost of spills and assesses natural resource damage.

Oil Spill Response

OSPR staff responds to spills of petroleum (oil) and deleterious materials in State waters that impact fish and wildlife. This includes setting up and operating an Incident/Unified Command System to manage the incident; establishing on-scene communication support; providing care to oiled wildlife affected by a spill; responding to media inquiries. OSPR investigates pollution incidents and provides technical expertise for cleanup strategies.

Inland Pollution

The inland water pollution response program has the responsibility to respond to discovered or reported spills of petroleum (oil) in areas other than the marine environment and are responsible for abatement, cleanup, and removal of pollutants from the environment. The findings from activities such as injury determination, damage assessment, remediation and restoration are used by prosecutors to collect fines and penalties, negotiate settlements and recover costs from the responsible party.

Analytical Laboratories and Base Realignment and Closure

The OSPR currently has four analytical laboratories. The Water Pollution Control Laboratory (WPCL) analyzes environmental containments in water, sediments and tissue to ensure compliance with Fish and Game Code 5650, and to support wildlife loss investigations. The Aquatic Toxicology Laboratory (ATL) is a full service freshwater bioassay laboratory and is used to investigate and assess the extent and biological effects of contamination in the freshwater and estuarine environments. The Moss Landing Marine Laboratory (MLML) conducts marine toxicological studies to investigate the extent and biological effects of contaminations in the marine environment. The Petroleum Chemistry Laboratory provides analyses related to oil spill enforcement actions taken under the jurisdiction of OSPR. Three of the laboratories (WPCL, ATL, MLML) routinely provide services for other state agencies resulting in reimbursement agreements. A few of the current agreements are for Mercury Research and Monitoring, Bioassessment of Hydroelectric Facilities and Surface Water and Bed Sediment Analyses. In addition the Base Realignment and Closure (BRAC) program is under the purview of OSPR. This program contracts with the Department of Toxic Substances Control to facilitate military base cleanup, closure and reuse.

Exotic Species Control

The Ballast Water Management Act of 1999, Chapter 849, Statues of 1999 established this program to address the problem of the introduction and spread of non-indigenous aquatic species into the state waters of California. This program is funded by a fee established by the State Lands Commission levied on vessels that come into California from areas outside the exclusive economic zone and fail to comply with the ballast water management regulation. The OSPR in consultation with other state agencies and stakeholders conducts studies and evaluates alternatives for treating and otherwise managing ballast water for the purpose of eliminating the discharge of non-indigenous species into the waters of the state. Current studies involve alternatives to mid-ocean

exchange, establishment of a baseline of non-indigenous aquatic species that are present and then monitor for new introductions.

Environmental Enhancement Fund

All penalties collected under Article 9 (commencing with Section 8670.57) and deposited into the Fund shall be used for environmental enhancement projects approved by the Environmental Enhancement Committee. Such projects acquire habitat for preservation or improves or restores habitat quality and ecosystem function.

PROGRAM OUTCOMES

- Industry sponsored Drills and Exercises attended by OSPR personnel

  FY 2005-06 -- 41
  FY 2006-07 -- 43

- Drills and exercises conducted on Oil Spill Response Organizations (OSROs) to assess the preparedness of facilities and vessels.

  FY 2005-06 – 83
  FY 2006-07 – 44

- Natural Resource Damage Assessment

  - ❖ S.S. Jacob Luckenbach Oil Spill – Ongoing (2002 – current)
  - ❖ Kure Oil Spill – Ongoing (1997 – current)
  - ❖ Chevron/Casto Cove – Ongoing (2005 - current)
  - ❖ M/V Stuyvesant – Settlement received in 2006-07 of approximately $7.7 million
  - ❖ Searles Lake – Settlement received in 2006-07 of up to $650,000 per year for forty years
  - ❖ Kinder/Morgan Suisun Marsh, Donner and Oakland Estuary Incidents – Settlement received in 2006-07 of $3.2 million

- Scientific Study and Evaluation Program – This program provides funds to investigate and evaluate new oil spill response and cleanup methods, adverse ecological effects of oil spills, and natural resource damage assessment tools.

  FY 2005-06 - Total projects funded were 12 for a cost of $422,617.
  FY 2006-07 - Total projects funded were 9 for a cost of $366,571.

- Certificates of Financial Responsibility (COFR) are required to demonstrate the ability to pay for an oil spill in marine waters. Certificates issued are valid for a period of two (2) years.

  Certificates issued in FY 2005-06 – 5,179
  Certificates issued in FY 2006-07 – 2,871

  FY 2005-06 total revenue COFRs -- $5.4 million
  FY 2006-07 total revenue COFRs -- $4.7 million

-- Program 61 --
FISH AND GAME COMMISSION

FISH AND GAME COMMISSION

The California Fish and Game Commission (Commission) ensures the long term sustainability of California's fish and wildlife resources by guiding the ongoing scientific evaluation and assessment of California's fish and wildlife resources; setting California's fish and wildlife resource management policies and insuring these are implemented by the Department of Fish and Game (Department); establishing appropriate fish and wildlife resource management rules and regulations; and building active fish and wildlife resource management partnerships with individual landowners, the public and interest groups, and federal, State and local resource management agencies.

STATUTORY MANDATES

Legal Citations and Authorities

Authority	Section Number or Other Reference
Constitution	Section 20, Article IV
Fish and Game Code	Section 30
Fish and Game Code	Sections 101-106
Fish and Game Code	Sections 200-250
Fish and Game Code	Sections 300-317
Fish and Game Code	Sections 325-332
Fish and Game Code	Sections 355-357
Fish and Game Code	Section 375
Fish and Game Code	Section 390
Fish and Game Code	Sections 395-398
Fish and Game Code	Sections 400-401
Fish and Game Code	Sections 450-460
Fish and Game Code	Section 10503

PROGRAM DESCRIPTION

Many Californians are not fully aware of the identity, function or responsibilities of the Commission, and consider it synonymous with the Department. Actually, the Commission is a separate entity that has been involved in the management and wise use of California's fish and wildlife resources since 1870.

It is composed of five members, appointed by the Governor and confirmed by the Senate. The Commissioners are not full-time State employees, but individuals involved

in private enterprise with expertise in various wildlife-related fields. They have a staff of eight employees, which handle day-to-day administrative activities. The Commission meets at least eleven times each year to publicly discuss various proposed regulations, permits, licenses, management policies and other subjects within its areas of responsibility. It also holds a variety of special meetings to obtain public input on items of a more localized nature, requests for use permits on certain streams or establishment of new ecological reserves.

Between 1870 and 1940, individual Commissioners served at the pleasure of the Governor. In 1940 the people provided for a Fish and Game Commission in the State Constitution (Article 4, Section 20). The Legislature delegated to the Commission a variety of powers, some general in nature and some very specific. A major responsibility is the formulation of general policies for the conduct of the Department, and the Director is responsible for administering the Department's activities in accordance with these policies. This is the only area in which the Commission is directly involved in Department administration. Its policies concern fisheries and wildlife management, introduction of exotics, use of departmentally-administered land and a variety of other subjects.

Probably the best known responsibility of the Commission is its general regulatory powers function, under which it decides seasons, bag limits and methods of take for game animals and sport fish. In adopting hunting (biennially--even-numbers years) and sport fishing regulations (biennially -- odd-numbered years), the Commission, in each case, holds a series of open public meetings (three for hunting and four for sport fishing) located in various parts of the state, so that individual and group input can be received and considered prior to adoption of new or changed regulations.

PROGRAM OUTCOMES

The Commissioners' ultimate decisions must reflect not only the biological needs of our fish and wildlife, but also the wishes, needs and desires of all those who enjoy these resources. This is not an easy course to follow, and frequently it leads to conflicts between various interest groups. However, with the interest, understanding and involvement of everyone who appreciates our magnificent fish and wildlife resources, the California Fish and Game Commission will continue along the path of sound and enlightened resource management.